

February 2020

# New Mobility Survey Research

## Final Report



**Seattle**  
Department of  
Transportation

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# Introduction

# Purpose



## What is new mobility?

New mobility options are emerging elements of our transportation system that are enabled by digital technology, shared, driven by real-time data, and often providing curb-to-curb transportation. These options allow Seattleites to treat urban transportation as a customizable, on-demand service. They can book and pay for different transportation services as they go, based on what they need.

### **Deliver a high-quality transportation system for Seattle**

As the transportation landscape shifts in Seattle, it is important for SDOT to understand how and why people use different mobility options. Getting a complete picture of who uses new mobility options such as Transportation Network Companies and shared cars, bikes, and scooters—and how, when, where, and why—is important. This information will enable planners to help us all move safely and efficiently throughout Seattle.

SDOT hired PRR, an independent research firm, to conduct an online survey both with residents of Seattle and the surrounding region and also with recent or potential tourists. Priority audiences included people with disabilities, people of color, low income households, and youth (13-17 years old).

## Research Objectives

- Understand who uses new mobility options, and how, when, where, why, and how often they use these options.
- Understand incentives and barriers to using new mobility options.
- Explore attitudes towards new mobility options and how people see these options fitting in among the many modes they can choose from to travel in Seattle.
- Explore attitudes towards SDOT's role in regulating new mobility options.
- Track behavior and attitudes over time.
- Measure program effectiveness.

# Methods Overview



We surveyed people about their experiences with new mobility options and attitudes towards these emerging travel modes.

- PRR fielded an online survey in English November 9-24, 2019.<sup>1</sup> The survey was available by call-in phone option through December 6. A total of 2,854 people took the survey.
- PRR mailed an invitation to take the survey, followed a week later by a reminder postcard.<sup>2</sup> PRR used an **online panel** to recruit tourists and conducted **direct outreach** to recruit youth.
  - Seattle residents (n=2,176): An invitation went to 20,000 randomly selected addresses in Seattle city limits. Additionally, PRR recruited 28 youth December 3-6, 2019 through **in-person outreach** at Seattle-area high schools and community-based organizations: Nova High School, Garfield High School, Seattle World School, and the Garfield Teen Life Center.
  - Region residents (n=518): An invitation went to 10,000 randomly selected addresses outside Seattle but within the Sound Transit service area (see map to the right).
  - Tourists (n=160): Panel participants who had visited Seattle within the last 6 months or planned to visit within the next 6 months.
- The overall margin of error is +/- 2%.
- The final sample includes respondents from diverse locations and backgrounds. The recruitment methods were not intended to produce a representative sample, which often misses members of the priority audiences (see page 8) for this research.
- To improve the survey's accessibility, PRR offered an accessible version of the online survey (14% of respondents took this version) and a phone survey (2% of respondents used this option).
- Participants who completed the survey were eligible to enter a sweepstakes.



*The Sound Transit service area includes parts of Snohomish, King, and Pierce Counties and are incorporated into our analysis as the "Seattle Region."*

<sup>1</sup> PRR is conducting focus groups in all of Seattle's Tier 1 languages to reach populations who speak languages other than English. This will improve language access more than a translated online survey.

<sup>2</sup> 1,274 mailed invitations were returned as non-deliverable.

# Methods

## Terminology

### New Mobility Options

- **Ride hail** (also called Transportation Network Companies, TNCs, or “ridesharing”) allows customers to request a ride in real-time using an app or website, unlike a traditional taxi service. Examples: Lyft and Uber.
- **Car share** is a type of car rental. Customers must become members and typically pay based on how far they travel and/or how long they have the car. Members drive themselves. Cars are available 24/7 around town, though many have recently left the Seattle market. Examples: Zipcar, Car2Go/SHARENOW\*, and GetAround.
- **Bike share** is a type of bike rental set up similar to car sharing. Customers pay based on how long they have the bike. Bikes are available for rental 24/7 around town. Examples: Lime\* and Jump.
- **Scooter share** is a type of scooter rental set up similar to car sharing. Customers pay based on how long they have the scooter. Scooters are available for rental 24/7 around town. At the time this survey was conducted, Seattle did not have any scooter share services.
- **Carpool, vanpool, and taxi apps** allow customers to request a ride in real-time using an app or website. Examples: Scoop and Waze.

### Types of New Mobility Users

- **User:** Have used at least one new mobility option to get around Seattle in the last 12 months.
- **Non-user:** Have not used new mobility option(s) to get around Seattle in the last 12 months (they may have used new mobility 13 months ago or in another city, or they may have never used new mobility.)

*\* Note: Car2go/SHARENOW and Lime stopped services in Seattle after this survey fielded.*

# Methods

## Segmentation

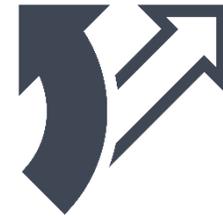
PRR grouped respondents by residence and the new mobility mode(s) they used, and segmented the analysis to look at characteristics of these groups.

*Throughout the report we use color-coded bar charts to report results specific to these groups unless the sample size is less than 30, in which case we summarize results in tables in Appendix C.*



### Residence

-  **Seattle resident:** Invited through the mailing to 20,000 Seattle addresses. We also invited youth and persons with disabilities through direct outreach (see page 8). 95% of Seattle residents were 18 or older.
-  **Region resident:** Invited through the mailing to 10,000 addresses outside Seattle and within the Sound Transit service area. 99% of region residents were 18 or older.
-  **Tourist:** Invited through a professional online panel company. 99% of tourists were 18 or older. 72 had visited Seattle within the last 6 months ("Recent" Tourists), 88 planned to visit within the next 6 months ("Potential" Tourists.)



### New Mobility Mode

-  **Ride hail:** Used ride hail services (e.g. Lyft or Uber) in Seattle in the last 12 months.
-  **Car share:** Used car share services (e.g., Zipcar, Car2Go/SHARENOW, or GetAround) in Seattle in the last 12 months.
-  **Bike share:** Used bike share services (e.g. Lime or Jump) in Seattle in the last 12 months.

*Note: Results related to other new mobility modes (e.g., taxi app, scooter share) are available in the separate crosstabulation document.*

*Note: The survey used the term "ride share" for plain language purposes. Figures throughout this report use the technical term "ride hail."*

# Methods

## Priority Audiences

SDOT identified priority audiences for this research and PRR conducted analysis to understand characteristics of these groups. Here are the definitions for who counts in each priority audience.

*Throughout the report we use the following icons to flag statistically significant relationships relevant to these groups. When a group does not appear on a page, there were no significant relationships to report.*



**People of color**  
Respondents who did not identify as White, Non-Hispanic.



**Non-English Speakers**  
Respondents who said they speak a language other than English at home.



**People with disabilities**  
Respondents who said they have a disability.



**Youth:**  
Respondents who are 13 to 17 years old.

*Notes: Many new mobility services require users to be at least 18 years of age. Additionally, given the small sample size of the youth segment, PRR conducted in-depth analysis using crosstabulations, which are reported separately.*

01

**PRR used logistic regression to estimate how likely a respondent's characteristics (e.g., disability) influenced their survey responses (e.g., uses bike share vs. doesn't use bike share).**

We report odds ratios of at least 1.2 (20% more likely) or less than 0.8 (20% less likely), indicating a relatively strong relationship.



Odds ratios measure the strength of the relationship between characteristics and outcomes. Odds ratios of 1 mean that the influence on the outcome are equally likely across groups.



**Regression controls for multiple factors at once.**

PRR's regression analysis accounted for the following characteristics of respondents: gender, age, income, whether they are a person of color, whether they have a disability, and whether they speak a language other than English at home.

02

**PRR used crosstabulations to understand differences between groups.**

We used chi-square analysis to determine whether differences between groups were significant. Estimates must have a 0.05 significance level (a 95 percent confidence level) and a coefficient value > 0.15 or < -0.15 to be statistically significant. Together, these measures indicate a moderate effect size.



**This report only describes statistically significant relationships.**

When something is statistically significant, it means it is highly unlikely to be the result of random chance. To achieve the cut-off for statistical significance, estimates must have a 0.05 significance level (a 95 percent confidence level).

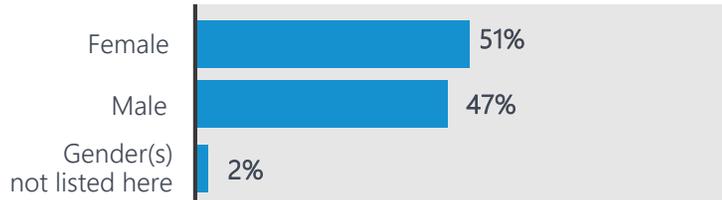


This report summarizes survey results using charts. Note that the totals in some charts may add up to somewhat more or somewhat less than 100% due to rounding or where respondents may provide multiple responses. Additionally, the total number of respondents varies from chart to chart based on how many people answered the question. Sometimes people skipped a question or groups of respondents saw different questions based on their travel behavior.

# Demographic Profile – Seattle Residents, Part 1

## 2,514 respondents

### Gender



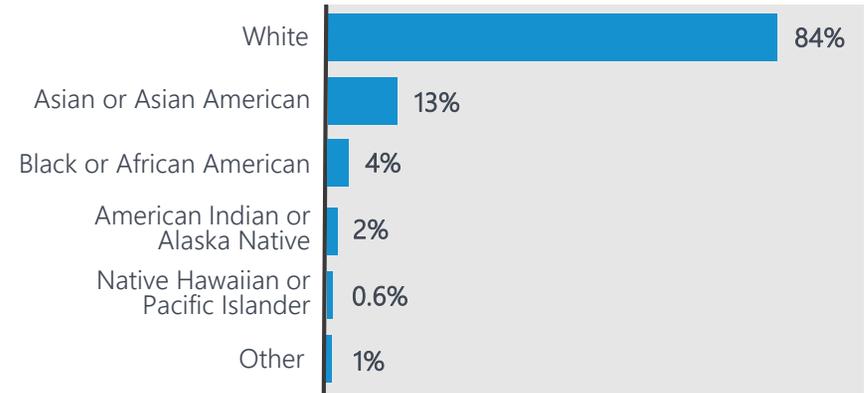
### Household Income



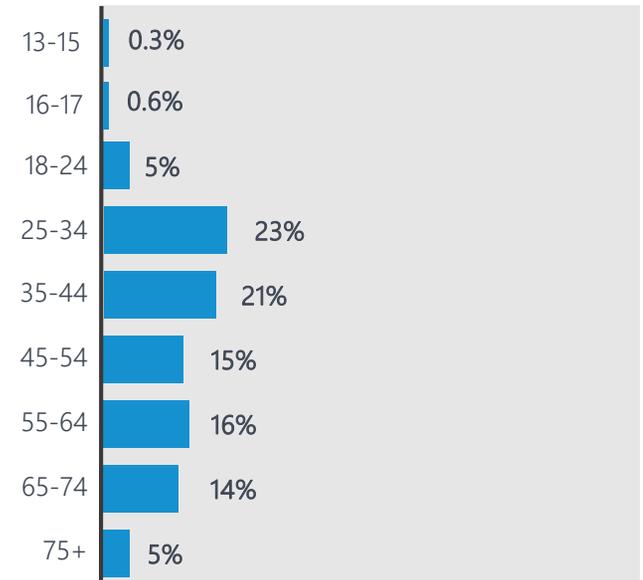
### Ethnicity



### Race



### Age

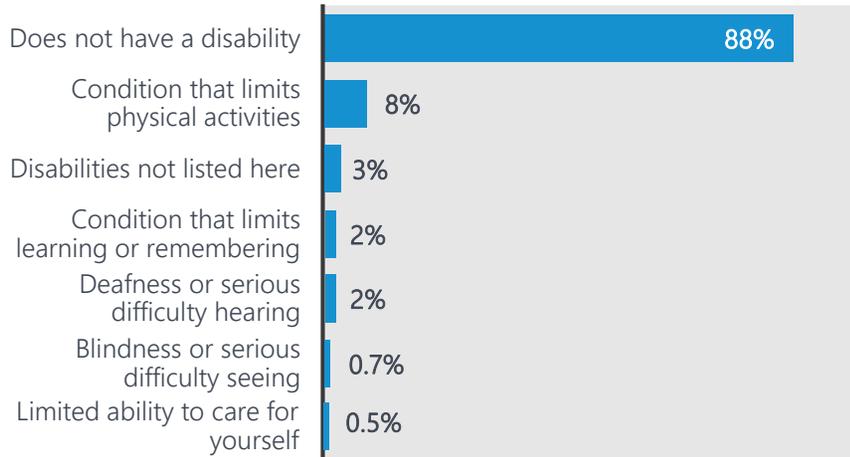


*Due to rounding, or options where participants could select multiple answers, percentages may not sum to 100%. Rounding occurs on all demographic slides.*

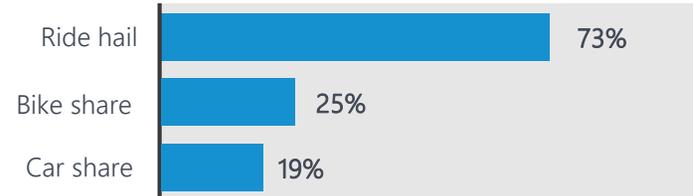
# Demographic Profile – Seattle Residents, Part 2

## 2,514 respondents

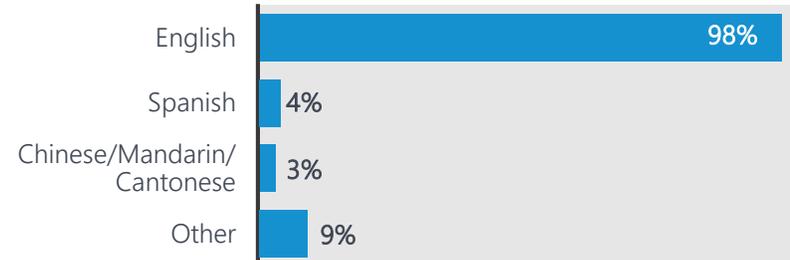
### Ability



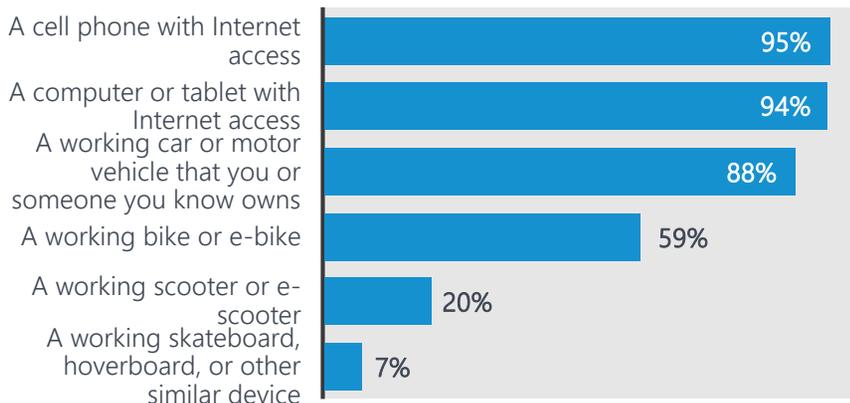
### Uses New Mobility Options



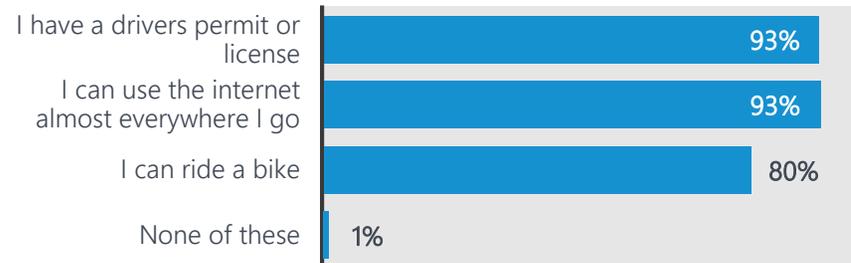
### Home Language(s)



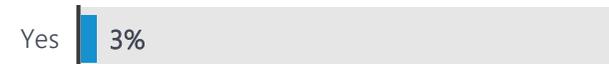
### Mobility Access Factors



### Ability to Access New Mobility



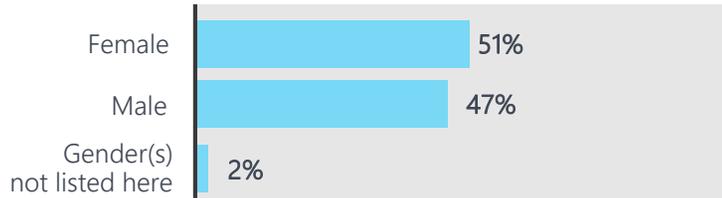
### Ever Worked for a Ride Hail Company



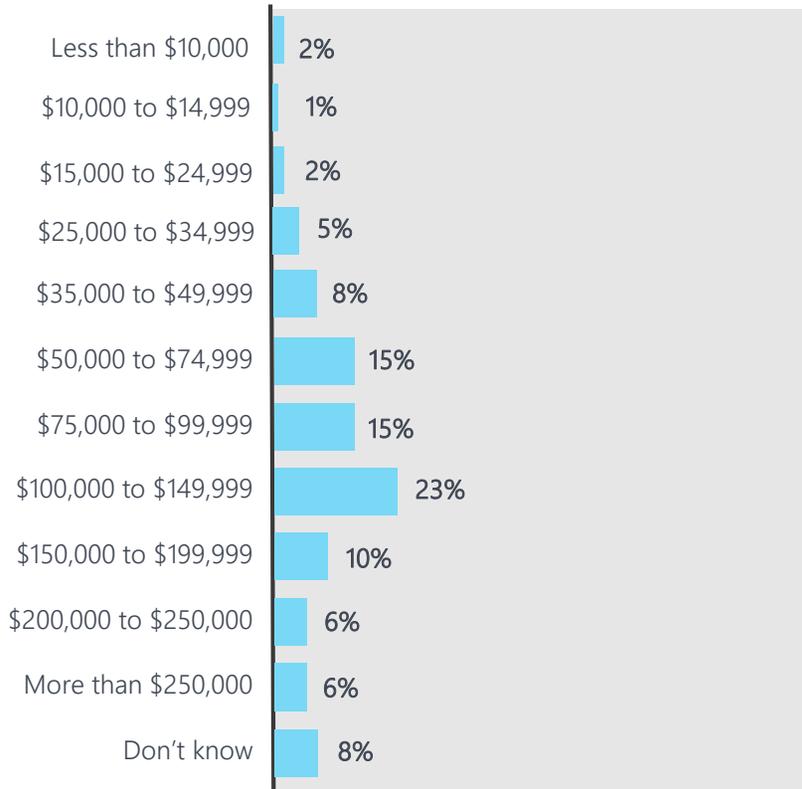
# Demographic Profile – Region Residents, Part 1

## 602 respondents

### Gender



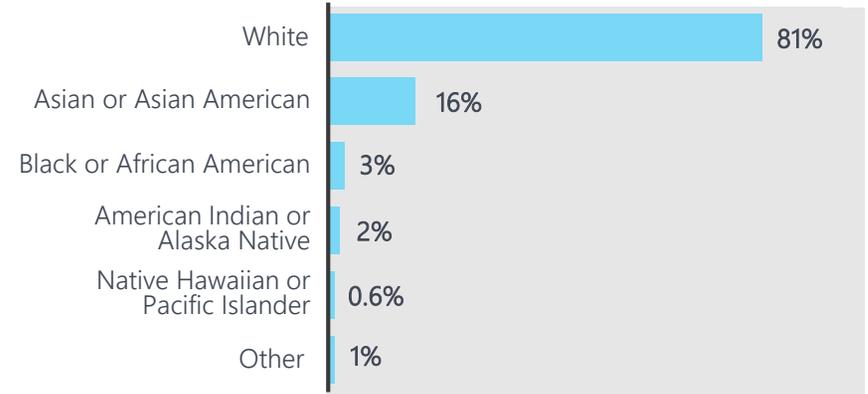
### Household Income



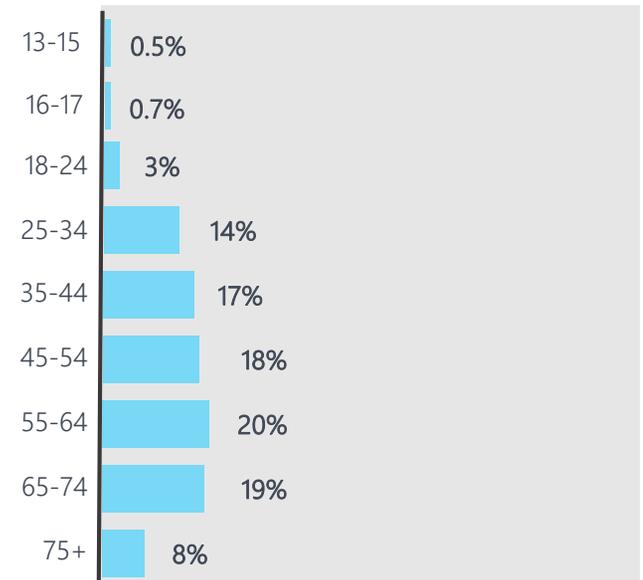
### Ethnicity



### Race



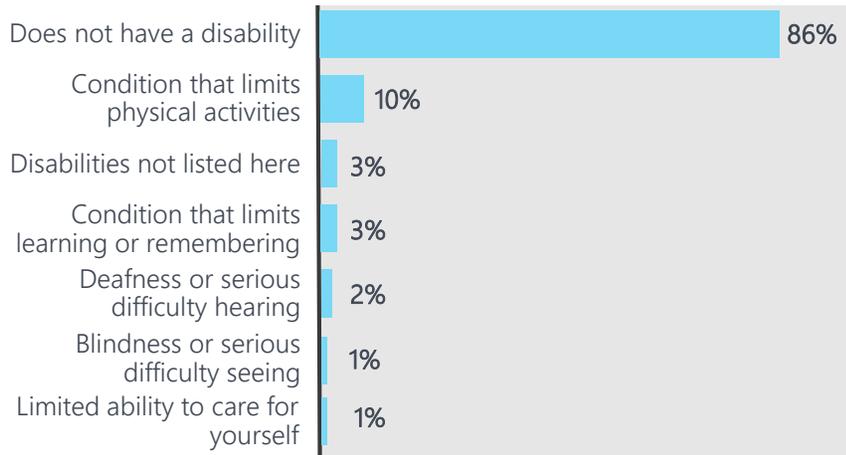
### Age



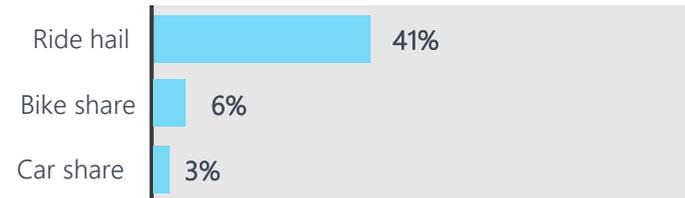
# Demographic Profile – Region Residents, Part 2

## 602 respondents

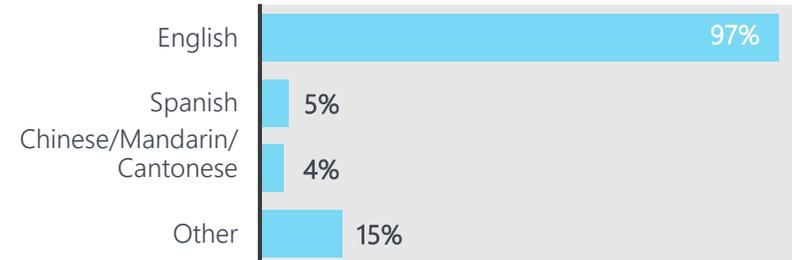
### Ability



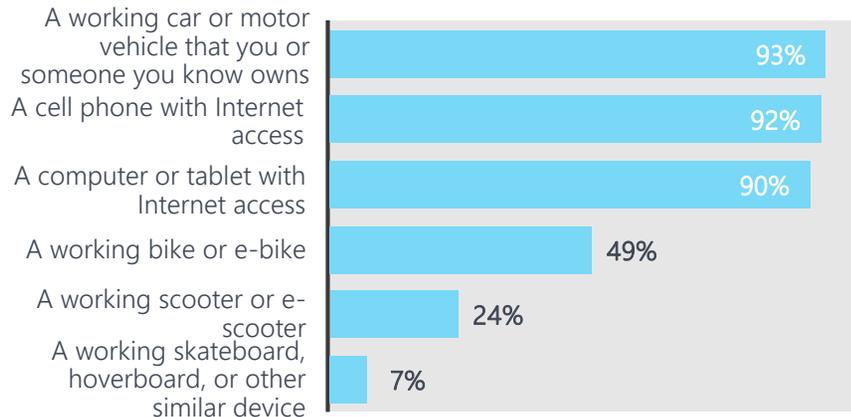
### Uses New Mobility Options



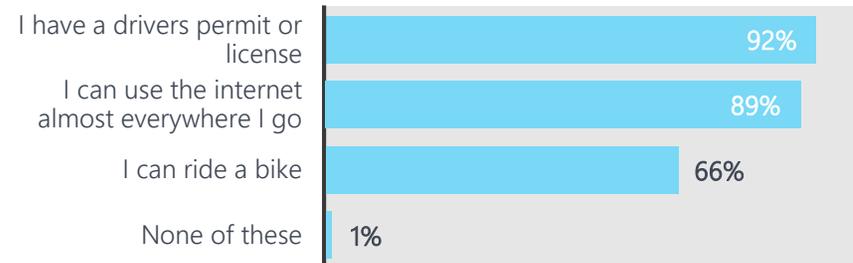
### Home Language(s)



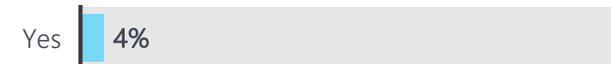
### Reliable Access for New Mobility



### Ability to Access New Mobility

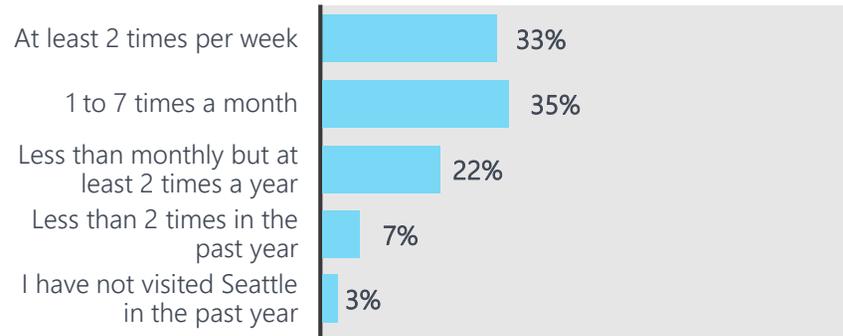


### Ever Worked for a Ride Hail Company



# Demographic Profile – Region Residents, Part 3

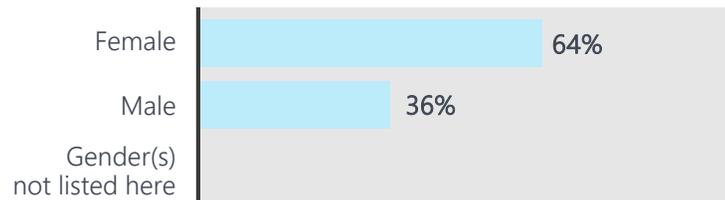
## Frequency Visit Seattle



# Demographic Profile – Tourists, Part 1

## 160 respondents

### Gender



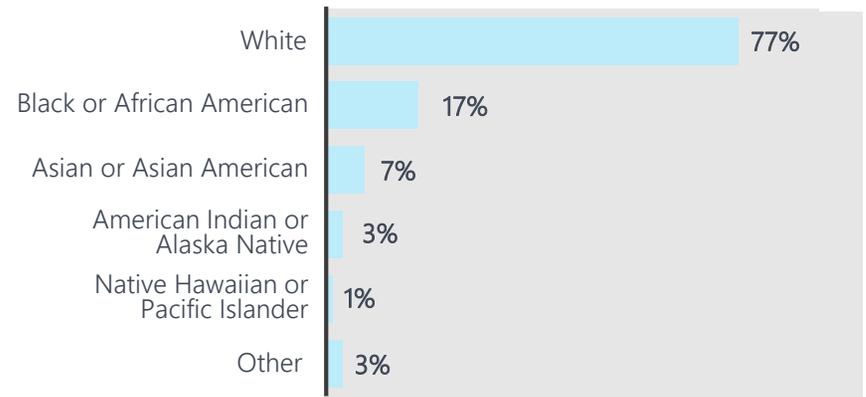
### Household Income



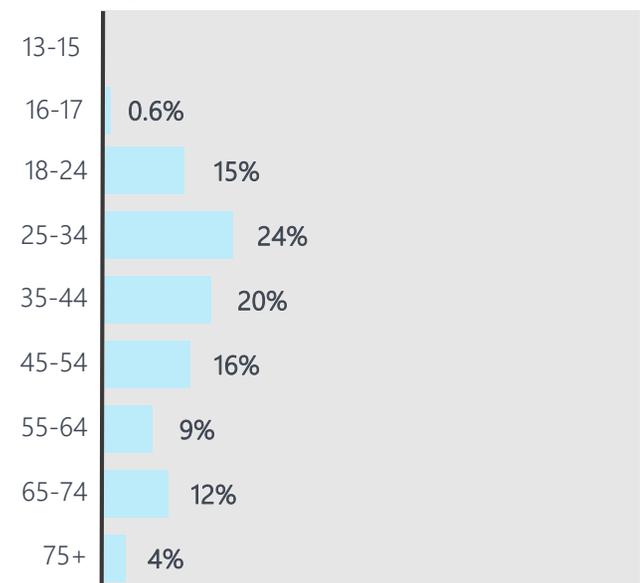
### Ethnicity



### Race



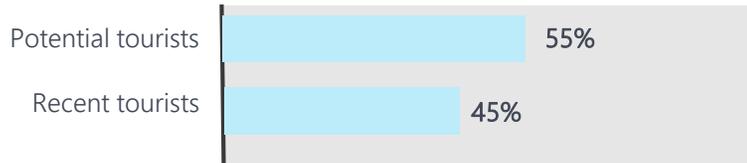
### Age



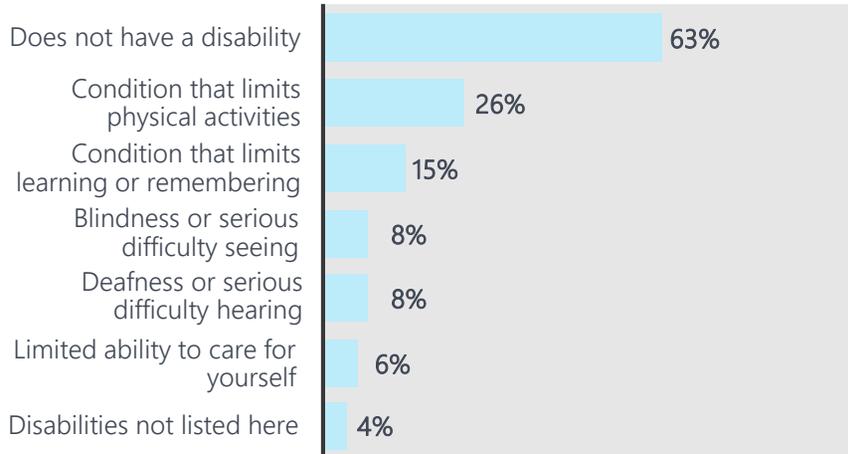
# Demographic Profile – Tourists, Part 2

## 160 respondents

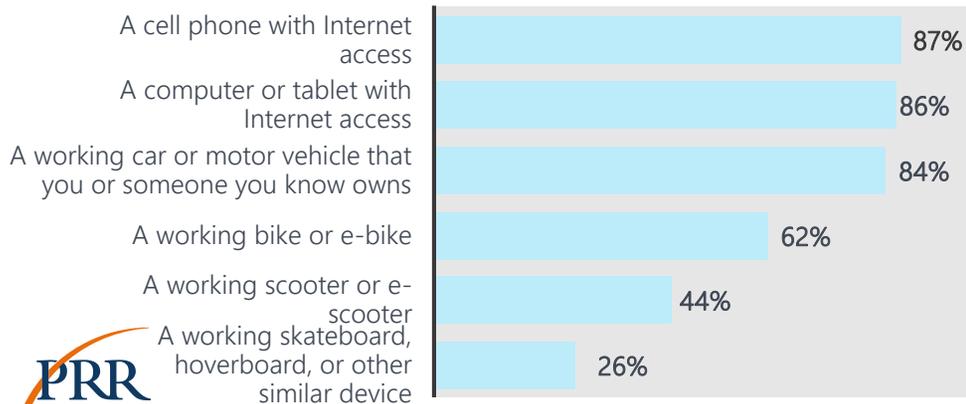
### Recent vs. Potential Tourists



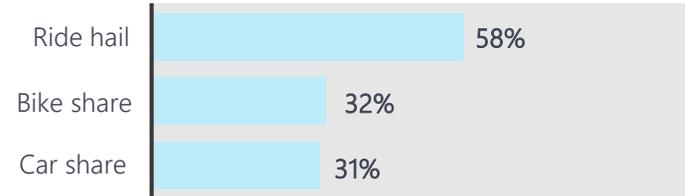
### Ability



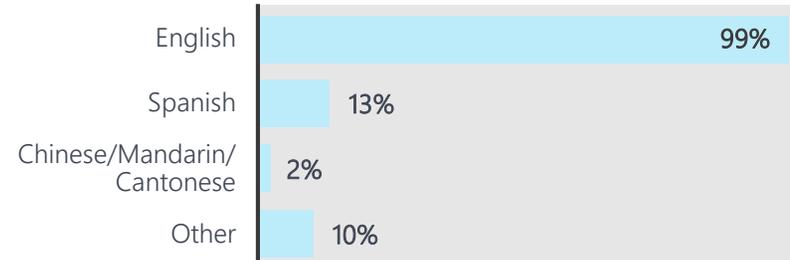
### Reliable Access for New Mobility



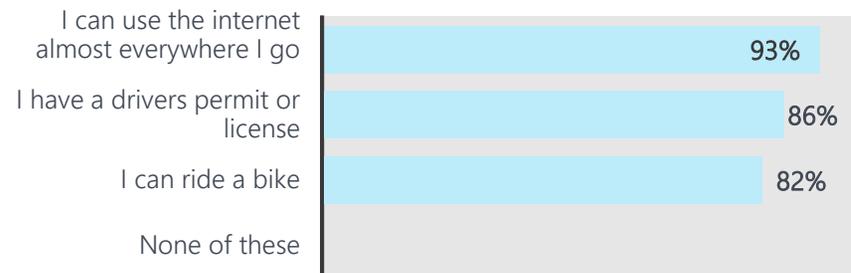
### Uses New Mobility Options



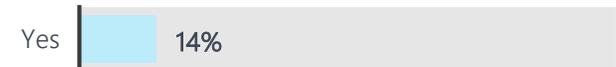
### Home Language(s)



### Ability to Access New Mobility



### Ever Worked for a Ride Hail Company



# Key Findings

A majority of respondents have used new mobility in the last 12 months, and they use it for a variety of reasons.

- Ride hail is the most well-known and most frequently used new mobility option.
- Seattle residents were more aware about new mobility options and used them at higher rates than region residents or tourists.
- Respondents often use new mobility options for recreational activities or to avoid a bad experience (e.g., heavy rain), but not everyone can use these options yet.
- Non-users said they do not use a particular new mobility option because they prefer to drive, think it's too expensive, or have concerns about safety.

Time of day and public transit, not payment methods, are key factors when respondents choose a new mobility option.

- Bike share users often ride in the afternoon (3:00 P.M. – 7:00 P.M.), while ride hail users often hail rides at night (7:00 P.M. – 3:00 A.M.).
- Ride hail and car share users consider if public transit will get them to their destination on time when deciding if they will use a new mobility option.
  - More respondents use bike share to get to transit, compared to other new mobility options.
- Some people with disabilities consider public transportation services like Access Transportation a new mobility option.
- Credit cards are the preferred method of payment, yet many respondents would like to pay with an ORCA card or similar pass.

## Key Findings

### Most respondents can get around town even if new mobility isn't an option.

- New mobility options are not interchangeable among users, who substitute options differently.
- Public transit is consistently a top-of-mind alternative across all groups, whereas personal vehicles are only a top of mind alternative for ride hail and car share users.
- Walking or using a mobility aid is the top alternative for bike share users. In general, more bike share users would take advantage of a wider range of mode substitutes if they could not use bike share.

### In thinking about changes to new mobility services, traffic, safety, and cost are top of mind for respondents.

- Respondents said the most important things to change about new mobility options were traffic impacts, cost to low-income users, and road safety by drivers.
- When asked what new mobility policies SDOT should focus on, respondents prioritized availability throughout the city, safety, and pricing.
  - Electric vehicles, protected bike lanes, and dedicated spots to lock bikes or park vehicles were more controversial.

# How to Read this Report

Figure Title: survey question, as it appears on the survey instrument.

Before taking this survey, which new mobility options had you heard about? Please select all that apply.

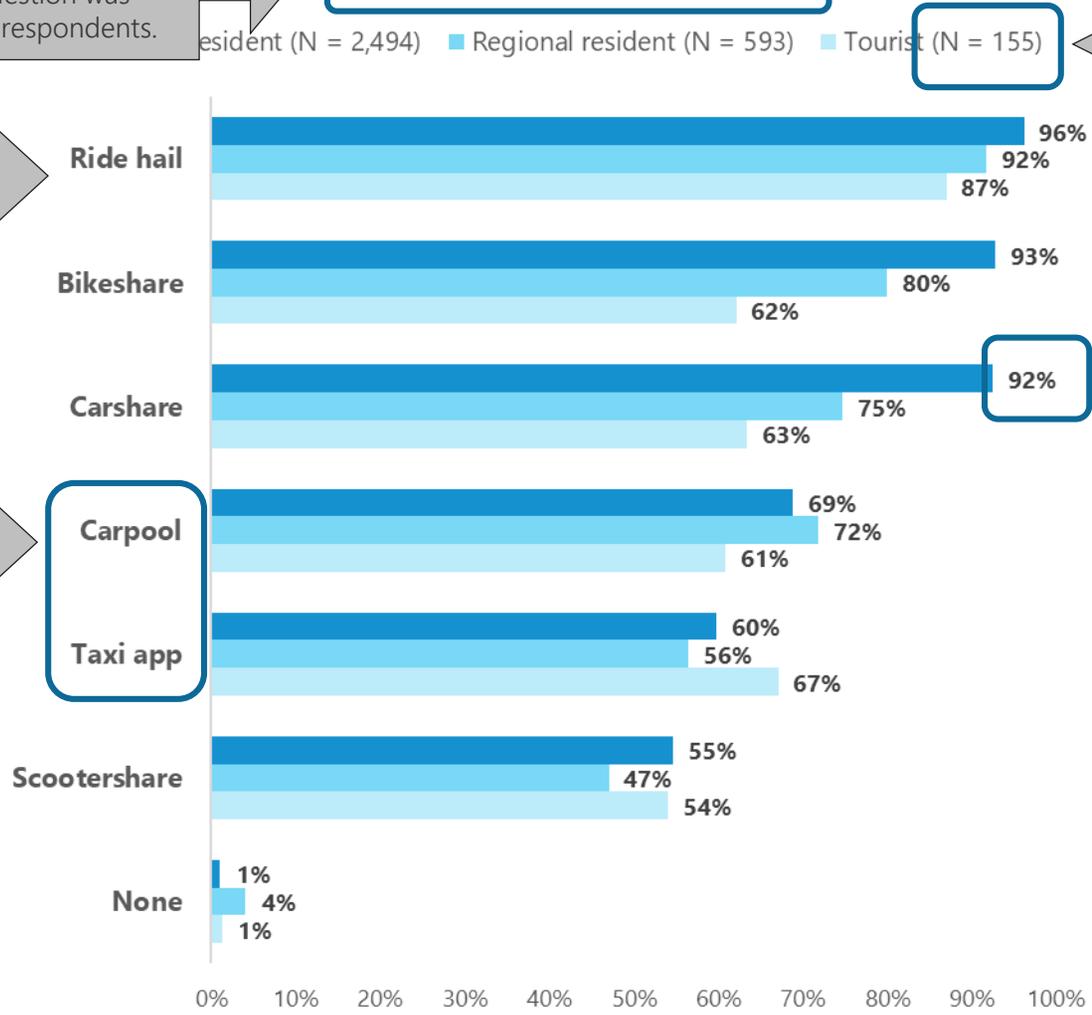
Base: people who were asked the question and notes on how the question was presented to respondents.

Base: all respondents.

N's: number of people who answered the question from each audience segment. This is used to calculate the overall percentages.

Color scheme: colors represent data from different segments (groups of respondents).

Items: answer choices to the survey question, as they appear on the survey instrument.



Percentages: the percent of respondents who selected a particular item.

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# Detailed Findings

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# Travel behavior

Which new mobility options respondents use.  
When and how they use new mobility options.

# Most respondents get around Seattle with personal vehicles, via public transit, or by walking.

- To travel around Seattle, many people use a vehicle they drive or walk.
  - Biking was more common among Seattle residents and tourists.
  - More Seattle residents said they use public transit than region residents or tourists.



**People of color**  
More likely to use a mobility aid, scooter, or e-scooter.



**People with disabilities**  
More likely to use carpool, vanpool, taxi, scooter, e-scooter, or mobility aids, or report that it doesn't apply to them.

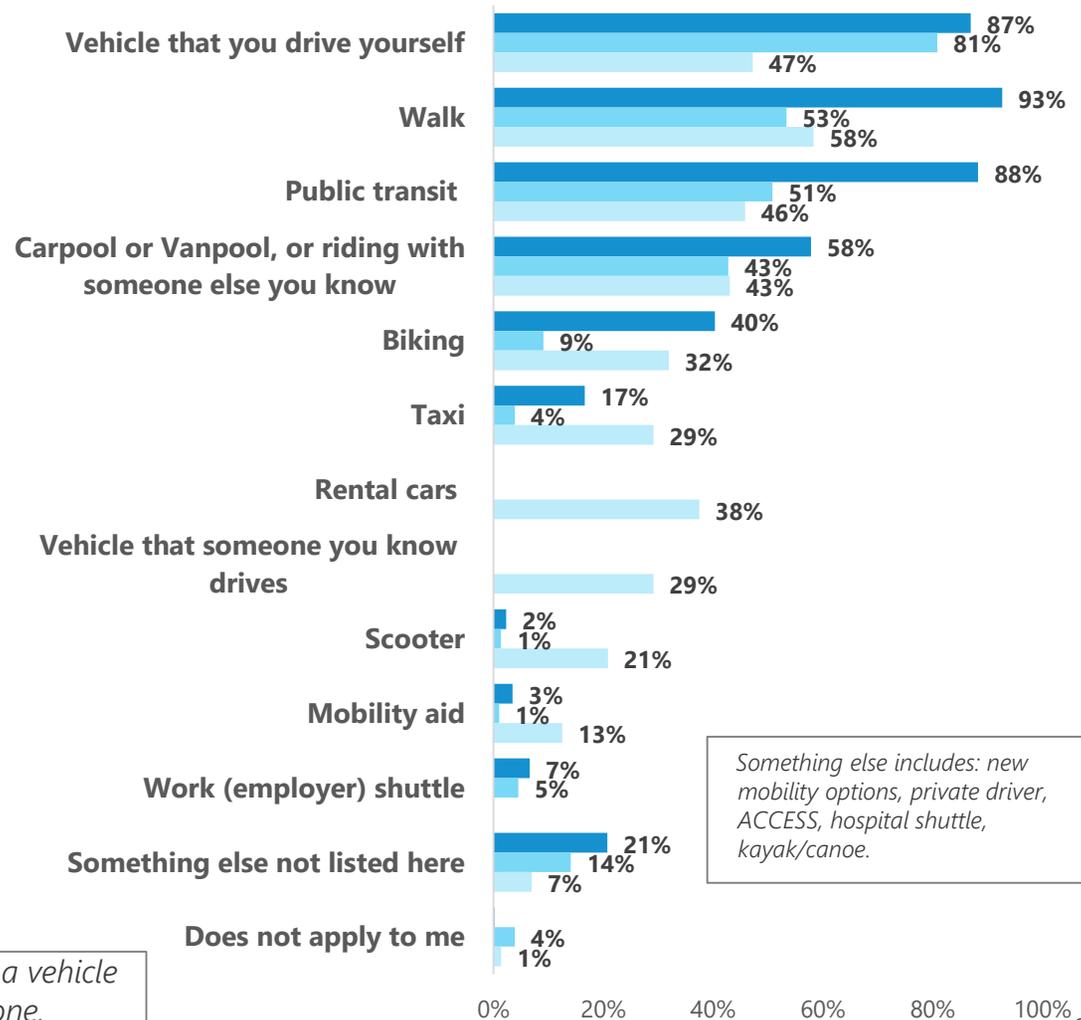


**Non-English Speakers**  
More likely to use a mobility aid.

## Which of the following have you used to get around Seattle in the last 12 months? Please select all that apply.

Base: all respondents.

■ Seattle (N = 2,497) ■ Region (N = 596) ■ Recent tourist (N = 72)



Something else includes: new mobility options, private driver, ACCESS, hospital shuttle, kayak/canoe.

Note: "Vehicle someone you know drives" would be a vehicle owned by a friend, but perhaps the tourist drove alone. Carpool is driving with other people.

# Most respondents have heard of several new mobility options, ride hail being the most well-known.

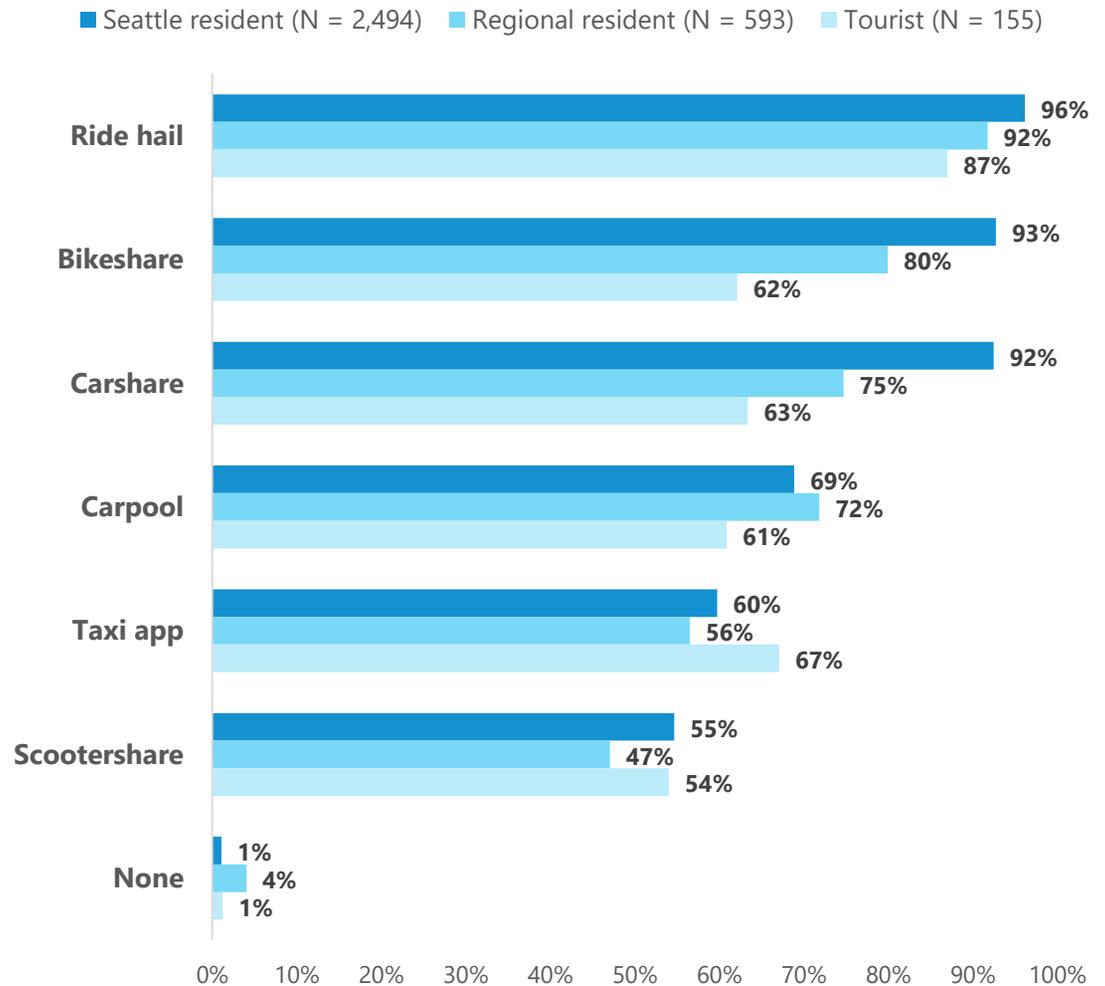
- Nearly all respondents had heard of at least one of the new mobility options.
  - People reported hearing about ride hail, bike share, and car share more than other types of new mobility.
  - More Seattle residents were familiar with new mobility.
  - More tourists were familiar with taxi apps.



**Non-English Speakers**  
More likely to report they haven't heard of these options.

## Before taking this survey, which new mobility options had you heard about? Please select all that apply.

Base: all respondents.

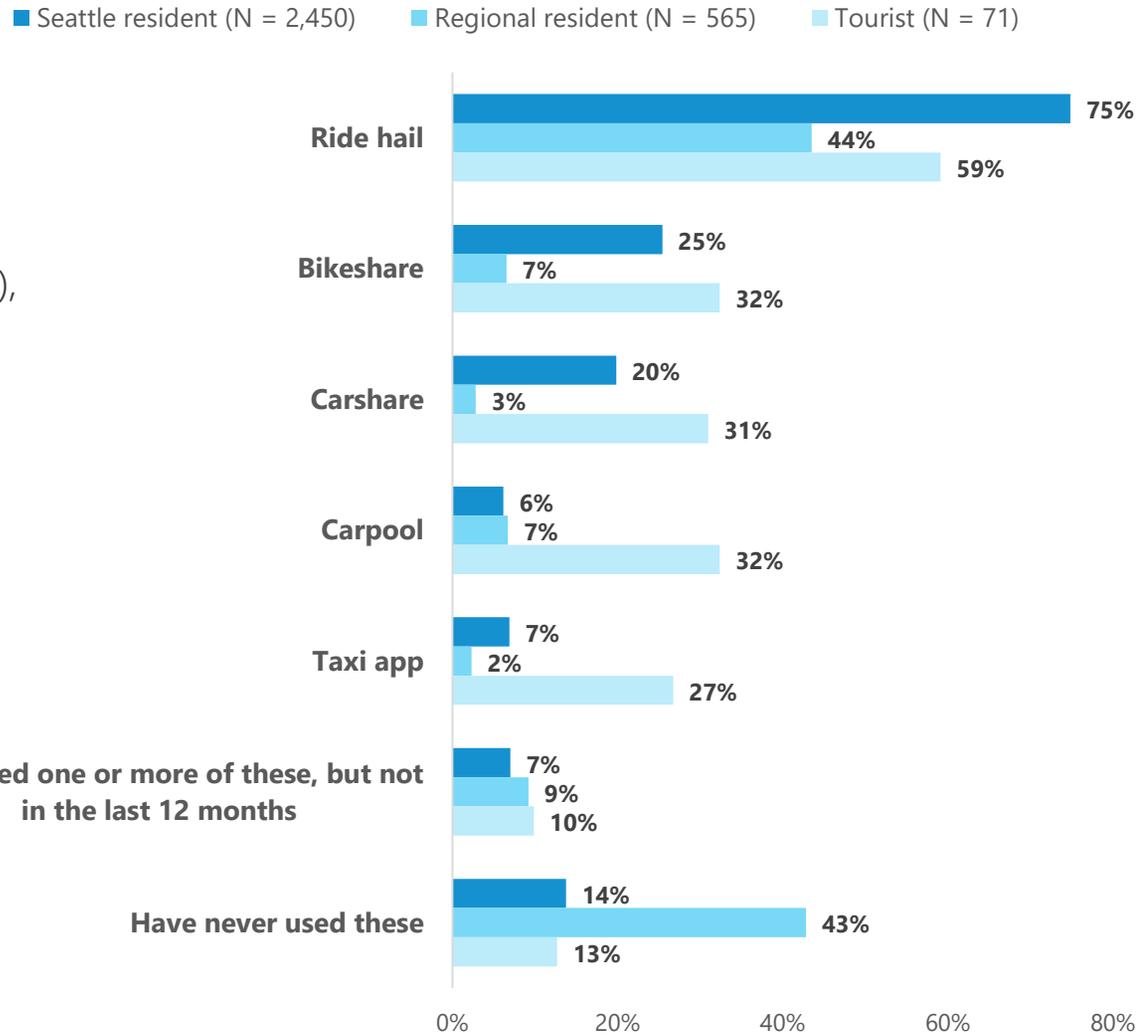


# More respondents used ride hail or bike share than other new mobility options in the last 12 months when traveling around Seattle.

- Of all the new mobility options, more respondents use ride hail.
- Most respondents have used a new mobility option in the last year.
  - Seattle residents' top new mobility modes: ride hail (75%) and bike share (25%).
  - Region residents' top new mobility mode: ride hail (44%).
  - Tourists' top new mobility modes: ride hail (59%), bike share (32%), and car share (31%).
- Of the 29 youth respondents (age 13 – 17), many had a new mobility account:
  - Ride hail: 14
  - Bike share: 10
  - Carpool: 2
  - Scooter share: 1

## Which new mobility options have you used in the last 12 months in Seattle? Please select all that apply.

Base: respondents who had heard of new mobility.



Statistically significant results reported on the next page.

# Race, ability, and language are associated with which new mobility options respondents have recently used in Seattle.



## People of color

More likely

- To have used carpool or vanpool.
- To report they have never used any of the options.



## People with disabilities

More likely to have used a taxi app.



## Non-English Speakers

More likely to have used a carpool, vanpool or taxi app.

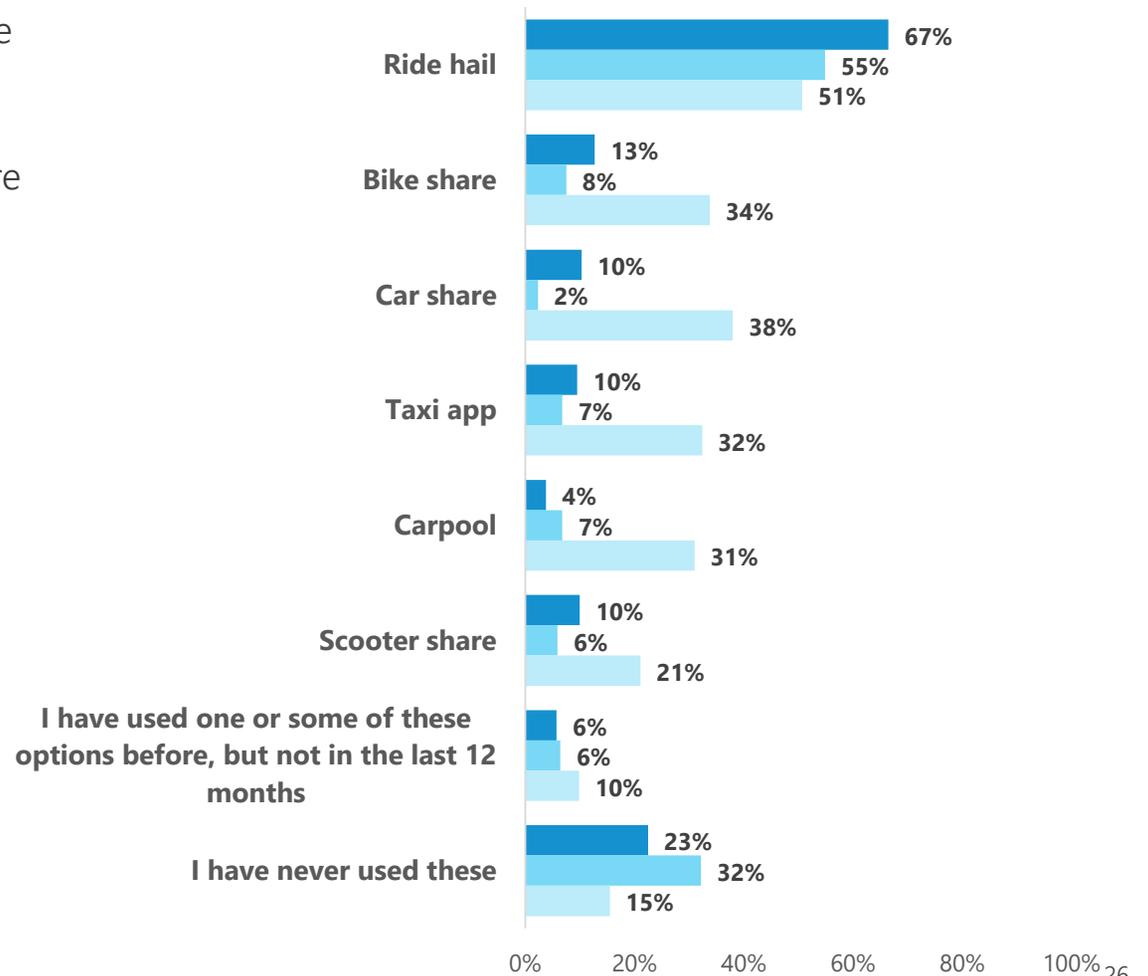
# More respondents used ride hail than other new mobility options in the last 12 months when traveling around the region.

- Of all the new mobility options, more respondents use ride hail.
- Most respondents have used a new mobility option in the last year.
  - Seattle residents' top new mobility modes: ride hail (67%) and bike share (13%).
  - Region residents' top new mobility mode: ride hail (55%).
  - Tourists' top new mobility modes in Seattle: ride hail (59%), bike share (32%), and car share (31%).

## Which new mobility options have you used somewhere outside of Seattle (beyond the city limits) in the last 12 months? Please select all that apply.

Base: all respondents.

■ Seattle (N = 2,383) ■ Region (N = 559) ■ Tourist (N = 71)



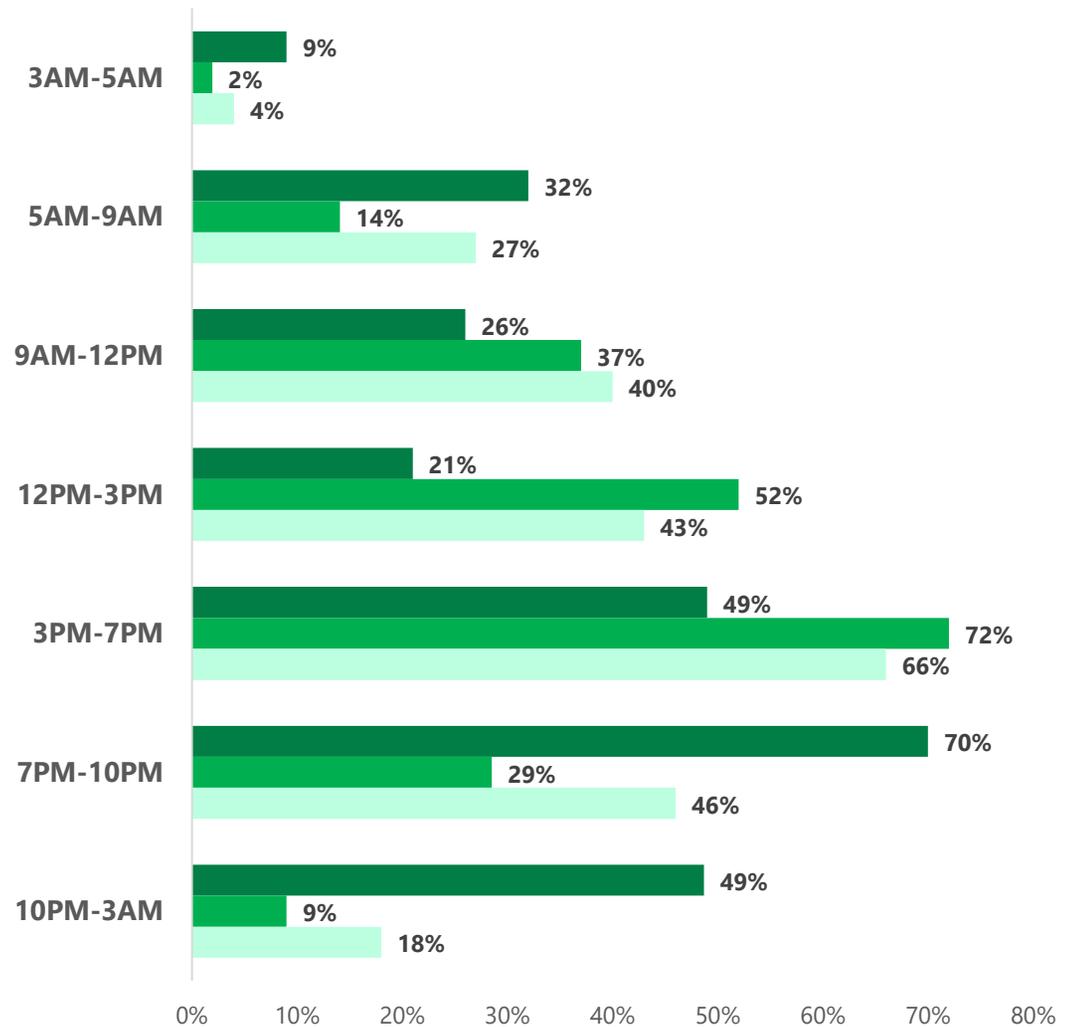
# A majority of respondents use new mobility options in the afternoon.

- Respondents generally use new mobility options in the afternoon and evening.
  - 3:00 P.M. to 7:00 P.M. is the most common time respondents use bike share and car share.
  - 7:00 P.M. to 10:00 P.M. is the most common time for ride hail.
- Far fewer respondents use bike share in the evening, compared to other new mobility modes. The top times respondents use bike share are:
  - 9:00 A.M. to 12:00 P.M. (37%)
  - 12:00 P.M. to 3:00 P.M. (52%)
  - 3:00 P.M. to 7:00 P.M. (72%)

## Time of day that respondents use each new mobility option

Base: Respondents randomly assigned to a mode group based on new mobility options they used.

■ Ride hail (N = 1,962) ■ Bikeshare (N = 559) ■ Carshare (N = 394)



# Race and ability are associated with when respondents use new mobility.



## People of color

*More likely to use ride hail*

- 3:00 A.M. to 5:00 A.M.
- 9:00 A.M. to 12:00 P.M.
- 12:00 P.M. to 3:00 P.M.

*More likely to use carpool apps*

- 9:00 A.M. to 12:00 P.M.
- 3:00 P.M. to 7:00 P.M.



## People with disabilities

*More likely to use ride hail*

- 9:00 A.M. to 12:00 P.M.
- 12:00 P.M. to 3:00 P.M.

*More likely to use bike share*

- 5:00 A.M. to 9:00 A.M.
- 10:00 P.M. to 3:00 A.M.

*More likely to use car share*

- 5:00 A.M. to 9:00 A.M.
- 7:00 P.M. to 10 P.M.
- 10 P.M. to 3:00 A.M.

*More likely to use carpool apps*

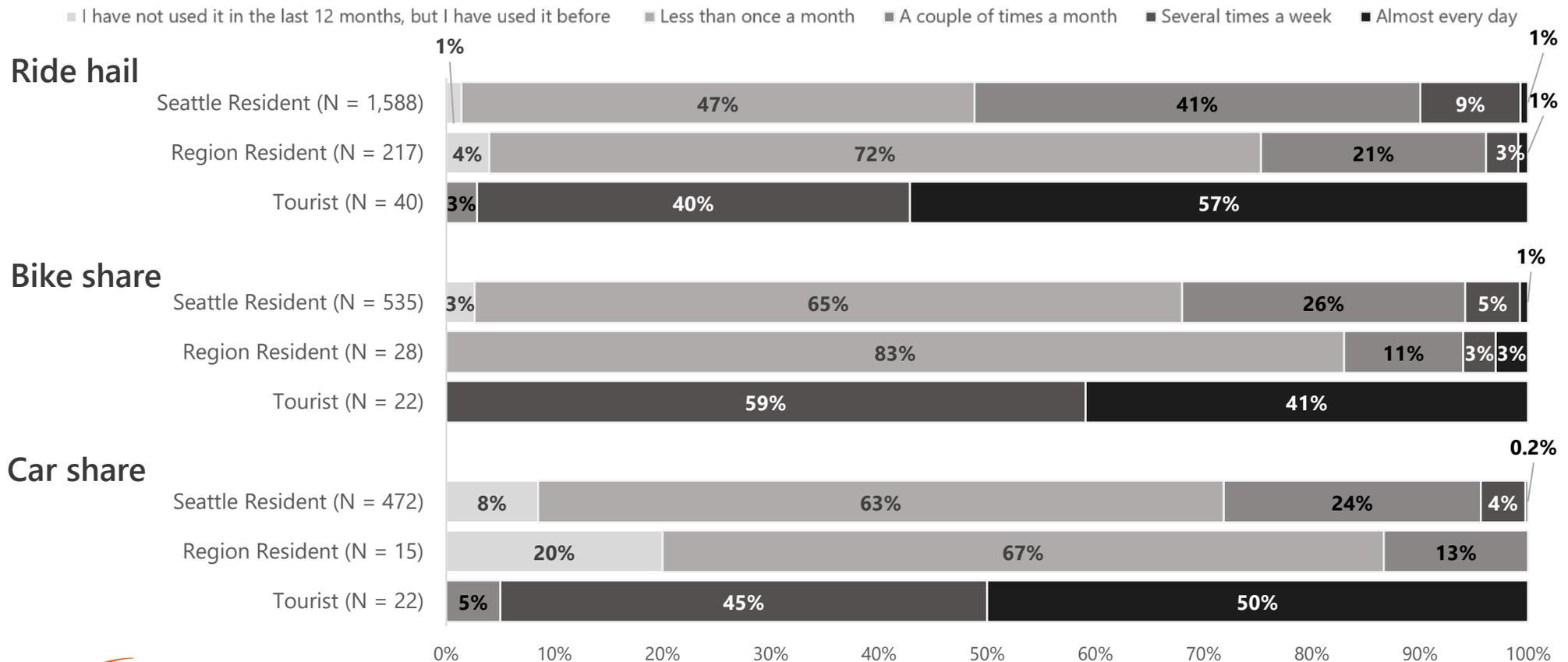
- 5:00 A.M. to 9:00 A.M.
- 3:00 P.M. to 7:00 P.M.

# Tourists use new mobility options more regularly when compared to Seattle and region residents.

- Tourists used new mobility options more frequently than other segments, and Seattle residents used new mobility options more frequently than Region residents.
- Respondents used ride hail more frequently than other new mobility options.

## In the past 12 months, about how many times have you used each option to get around Seattle?

Base: new mobility users.



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# Motivations and Barriers

Why respondents do or do not use new mobility options.

# Not having to find or pay for parking and getting to their destination more quickly than using public transit are top priorities.

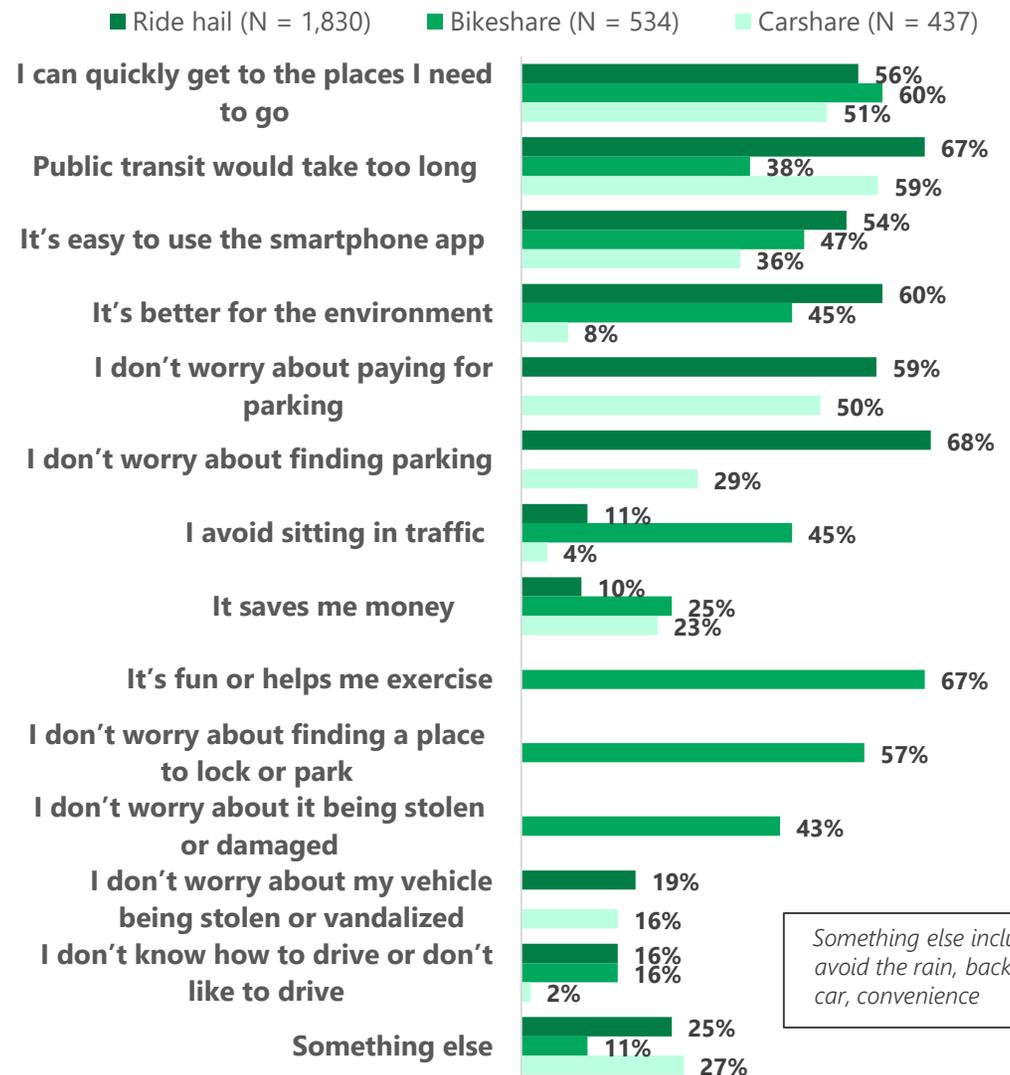
- Time and parking logistics weigh heavily in respondents' decision-making about using new mobility as opposed to other travel modes in Seattle.
- Top considerations for **ride hail**:
  - I don't worry about finding parking
  - Trip takes too long by transit
- Top considerations for **bike share**:
  - Offers fun or exercise
  - Can quickly get to destination
  - Avoid locking or parking the bike
- Top considerations for **car share**:
  - Trip takes too long by transit
  - Can quickly get to destination
  - Avoid worry about paying for parking

Statistically significant relationships for priority audiences appear on the following page.

*Note: Respondents only saw items relevant to them (e.g., only the bike share group saw the item "It's fun or helps me exercise")*

## Why do you use this option to get around Seattle instead of something else? Please select all that apply.

Base: respondents randomly assigned to a group based on new mobility option(s) they use.



*Something else includes: avoid the rain, back-up car, convenience*



# Race, ability and language are associated with respondents' reasons for using new mobility.



## People of color:

*More likely to use **ride hail** because...*

- It saves me money
- I don't drive or don't like to drive
- I avoid sitting in traffic
- I don't worry about finding or paying for parking



## Non-English Speakers:

*More likely to use **ride hail** because...*

- I can quickly get places I need to go
- It's better for the environment
- I avoid sitting in traffic
- Something else

*More likely to use **bike share** because...*

- I can quickly get places I need to go

*More likely to use **car share** because...*

- Public transit would take too long
- It's better for the environment
- It saves me money
- I avoid sitting in traffic
- I don't worry about finding parking



## Disability:

*More likely to use **ride hail** because...*

- I don't drive or don't like to drive
- Something else

*More likely to use **bike share** because...*

- I don't drive or don't like to drive
- I don't worry about finding a place to lock or park it
- Something else
- Public transit would take too long

*More likely to use **car share** because...*

- It's better for the environment
- It's easy to use the smartphone app
- I avoid sitting in traffic
- I don't worry about paying for parking
- I don't worry about my vehicle being stolen or vandalized

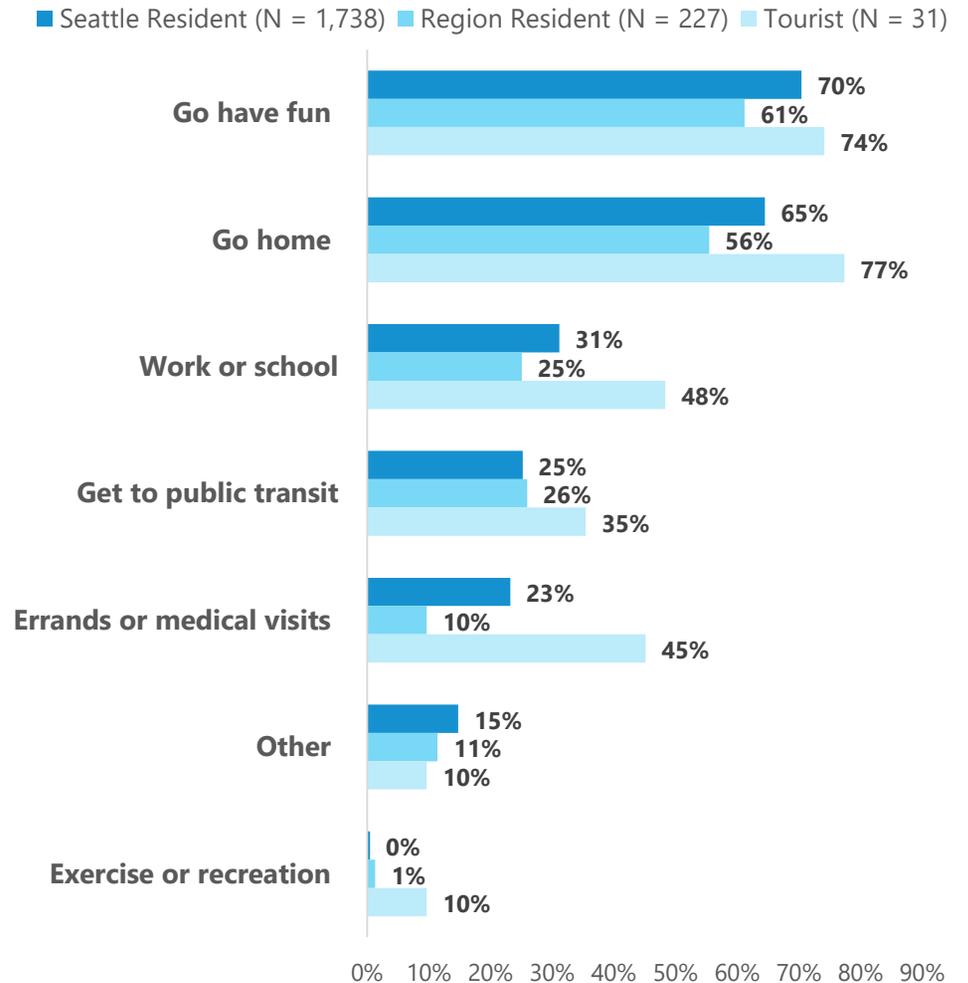
# A majority of respondents use ride hail to have fun or go home.

- More tourists use ride hail for a wider range of trip purposes than Seattle or Region residents.
- Top trip purposes for ride hail:
  - Have fun
  - Go home
  - Go to school or work

See page 36 for statistically significant relationships.

## Which of the following describe why you use ride hail? Please select all that apply.

Base: ride hail users randomly assigned this question (did not see questions on p. 33 or 34).



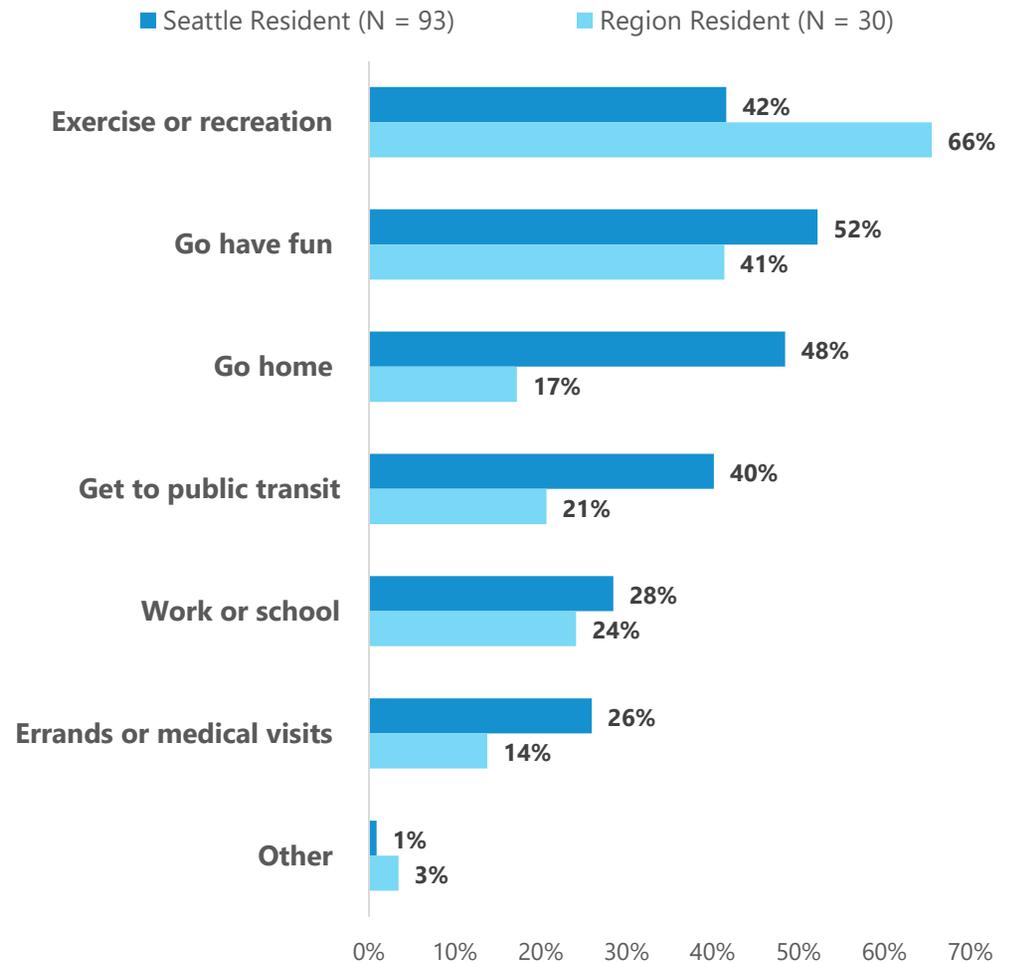
# Respondents use bike share for a variety of trips, including exercise, recreation, fun, or going home.

- Across segments, respondents use bike share for similar trips.
- Top trip purposes for bike share:
  - Exercise or recreation
  - Have fun
  - Go home

See page 36 for statistically significant relationships.

## Which of the following describe why you use bike share? Please select all that apply.

Base: bike share users randomly assigned this question (did not see questions on p. 32 or 34).



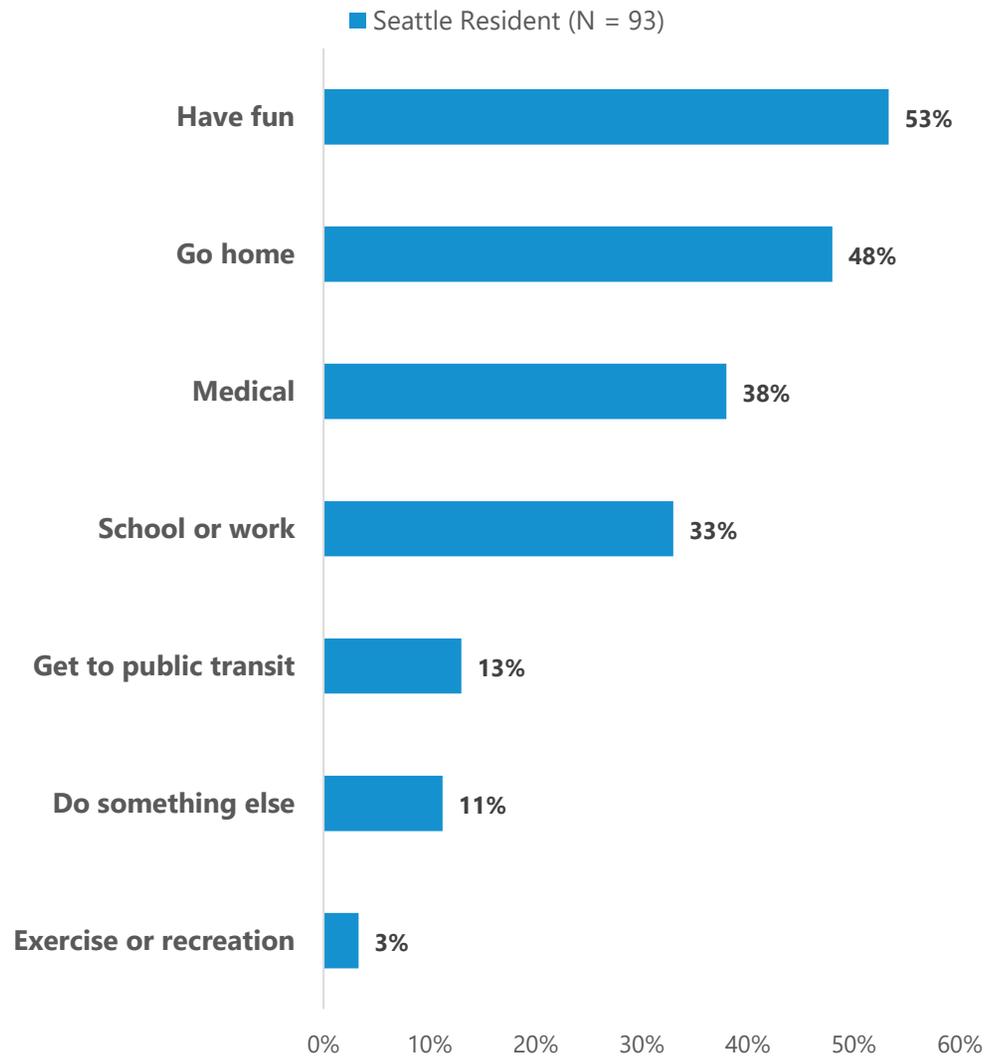
# A majority of respondents use car share to have fun, go home or get to school or work.

- Top trip purposes for car share:
  - Have fun
  - Go home
  - Go to school or work

See page 36 for statistically significant relationships.

## Which of the following describe why you use car share? Please select all that apply.

Base: car share users randomly assigned this question (did not see questions on p. 32 or 33).



# Race, ability, and language are associated with reasons why respondents use new mobility options.



## People of color are

*More likely to use **ride hail** to...*

- Go home
- Go to work or school
- Go out for errands or medical visits
- Get to public transit
- Use it for other reasons not listed



## People with disabilities

*More likely to use **car share** to...*

- Go have fun
- Get to public transit

*More likely to use **carpool apps** to...*

- Go out for errands or medical visits
- Go have fun
- Get to public transit



## Non-English Speakers

*More likely to use **ride hail** to...*

- Go to work or school
- Use it for other reasons not listed

*More likely to use **car share** to...*

- Get exercise or recreation
- Use it for other reasons not listed

*More likely to use **carpool apps** to...*

- Go to work or school
- Go out for errands or medical visits

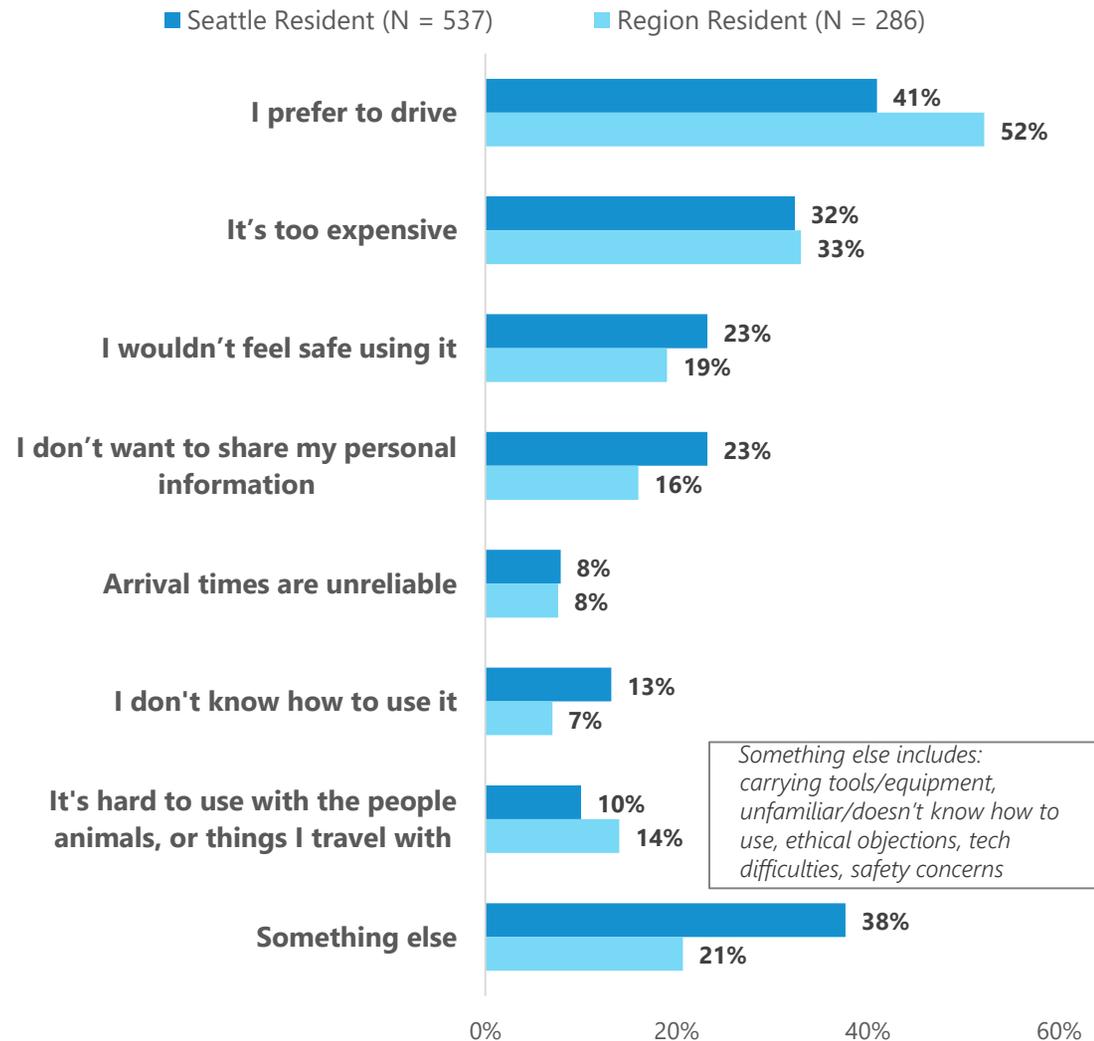
# Top barriers to using ride hail in Seattle: respondents prefer to drive or find the service too expensive.

- Top reasons ride hail non-users don't use this option in Seattle:
  - Prefer to drive
  - Think it's expensive
  - Don't feel safe using it
  - Don't want to share personal information with service providers
- Youth respondents shared reasons for not using a specific new mobility option. However, those who shared reasons often said it was because they were too young.

See pages 40-41 for statistically significant relationships.

## Which of the following describes why you don't use ride hail in Seattle? Please select all that apply.

Base: ride hail non-users.



Note: Items selected by 10% of respondents or less not shown (e.g., I can't use cash, trips take too long, I can't use it because of a disability, etc.)

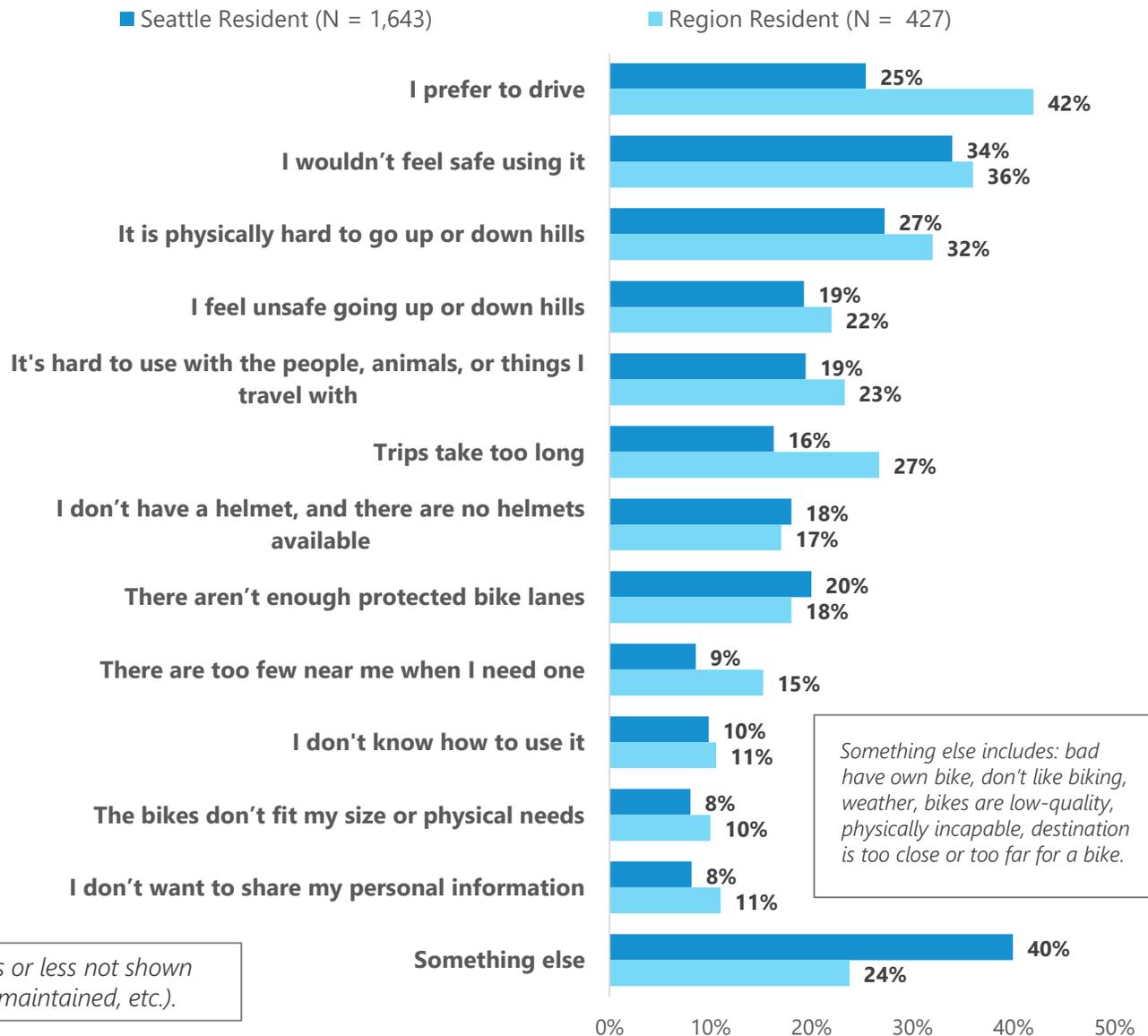
# Top barriers to using bike share in Seattle: respondents prefer to drive or don't feel safe using the service.

- Top reasons bike share non-users don't use this option in Seattle:
  - Prefer to drive
  - Don't feel safe using it
  - Find it physically hard to use

See pages 40-41 for statistically significant relationships.

## Which of the following describes why you don't use bike share in Seattle? Please select all that apply.

Base: bike share non-users.



Note: Items selected by 10% of respondents or less not shown (e.g., I can't use cash, the bikes aren't well-maintained, etc.).

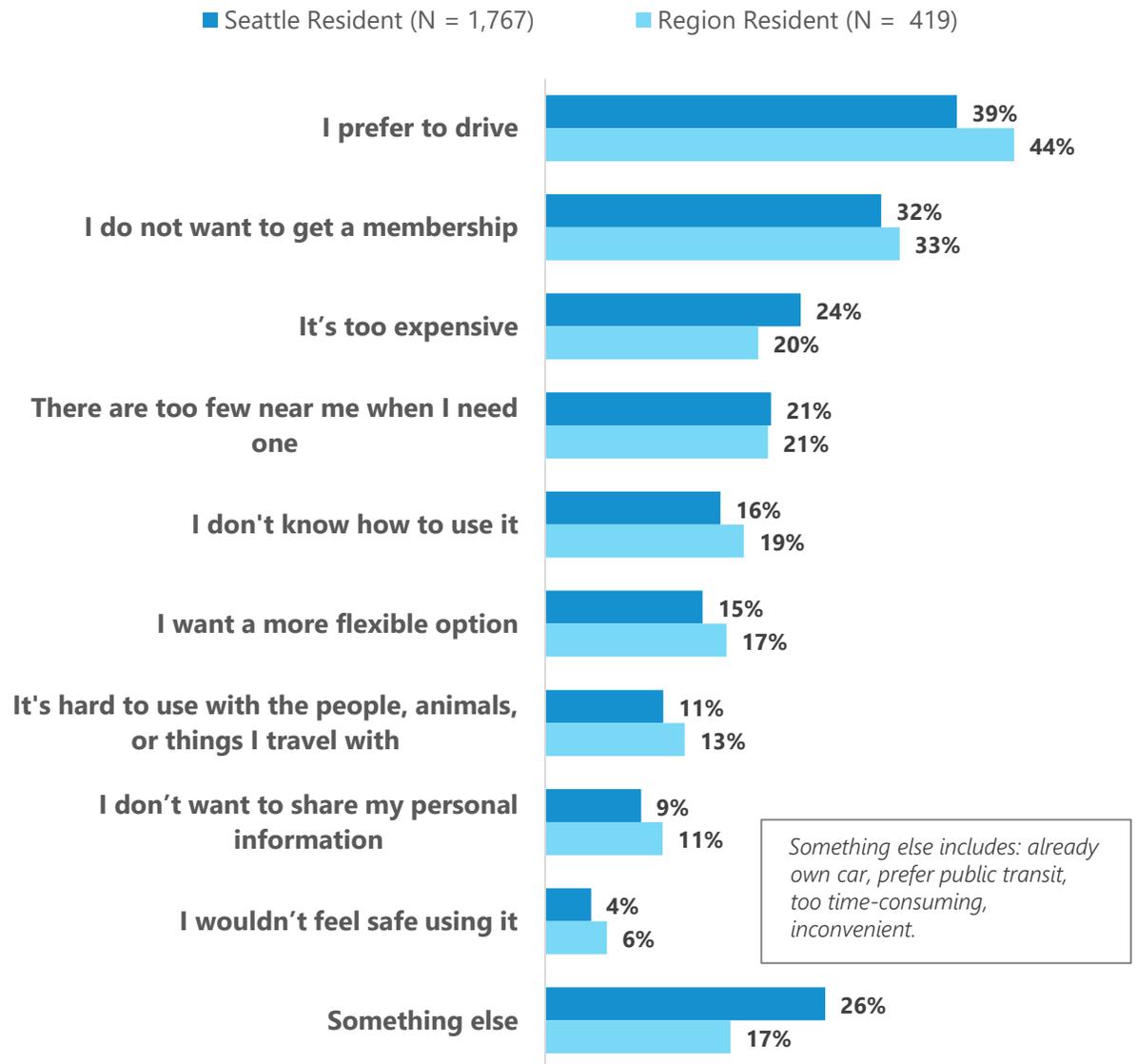
# Top barriers to using car share in Seattle: respondents prefer to drive or do not want to get a membership.

- Top reasons car share non-users don't use this option in Seattle:
  - Prefer to drive
  - Don't want a membership
  - It's too expensive

See pages 40-41 for statistically significant relationships.

## Which of the following describes why you don't use car share in Seattle? Please select all that apply.

Base: car share non-users.



Something else includes: already own car, prefer public transit, too time-consuming, inconvenient.

Note: Items selected by 10% of respondents or less not shown (e.g. I can't use cash, cars aren't clean or well-maintained, I can't use it because of a disability, etc.)

# Race is associated with respondents' reasons for NOT using new mobility.



## People of color:

*More likely to say they don't use **ride hail** because...*

- I wouldn't feel safe using it
- It's not clean enough
- I prefer to drive

*More likely to say they don't use **bike share** because...*

- I wouldn't feel safe using it
- I don't know how to use it
- It's too expensive
- I don't have a helmet, and there are no helmets available
- It is physically hard to go up or down hills
- I feel unsafe going up or down hills
- The bikes aren't well-maintained

*More likely to say they don't use **car share** because...*

- I didn't know Car Share was an option
- I wouldn't feel safe using it
- Arrival times are unreliable
- There are not enough near me when I need one
- I don't want to share my personal information
- I don't have a driver's permit or license
- I do not want to or cannot get a membership

# Ability and language are associated with respondents' reasons for NOT using new mobility.



## Respondents with disability:

*More likely to say they don't use **ride hail** because...*

- Didn't know it was an option
- Arrival times are unreliable
- There are not enough nearby
- Don't want to share their personal information
- Can't use it because of a disability

*More likely to say they don't use **bike share** because...*

- The bikes don't fit their size or physical needs
- It is physically hard to go up or down hills
- Feel unsafe going up or down hills

*More likely to say they don't use **car share** because...*

- It's too expensive
- Don't have a driver's permit or license



## Non-English Speakers:

*More likely to say they don't use **ride hail** because...*

- Can't use cash
- Trips take too long
- Can't use it because of a disability

*More likely to say they don't use **car share** because...*

- Didn't know it was an option
- It's hard to use with the people (including children), animals, or things they travel with
- Trips take too long
- It's too expensive
- Don't have a driver's permit or license

---

# Attitudes and Preferences

Payment preferences.

Decisions about mode substitution.

What should change about new mobility options.

What policies SDOT should prioritize.

# Credit cards are a preferred method of payment, yet many residents would prefer to pay with an ORCA card or similar pass.

- Most people like card-based payment options, including:
  - Credit card
  - ORCA card (especially for Seattle and Region residents)
  - Debit cards (favored over Apply Pay, Google Wallet)



## People with disabilities

More likely to prefer

- Cash
- Check
- Debit card
- Gift card or pre-paid card
- PayPal



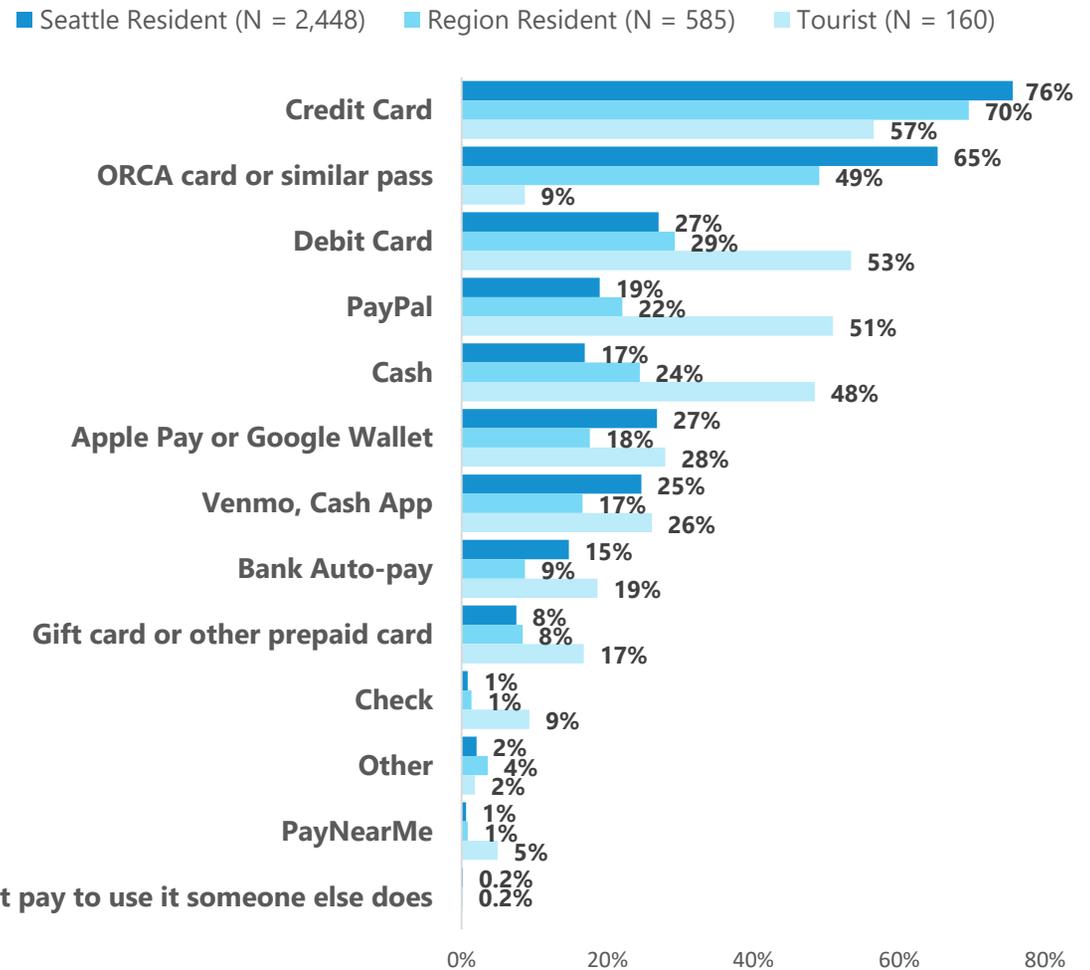
## Non-English Speakers

More likely to prefer

- Cash

## How would you prefer to pay for any new mobility option? Please select all that apply.

Base: all respondents.



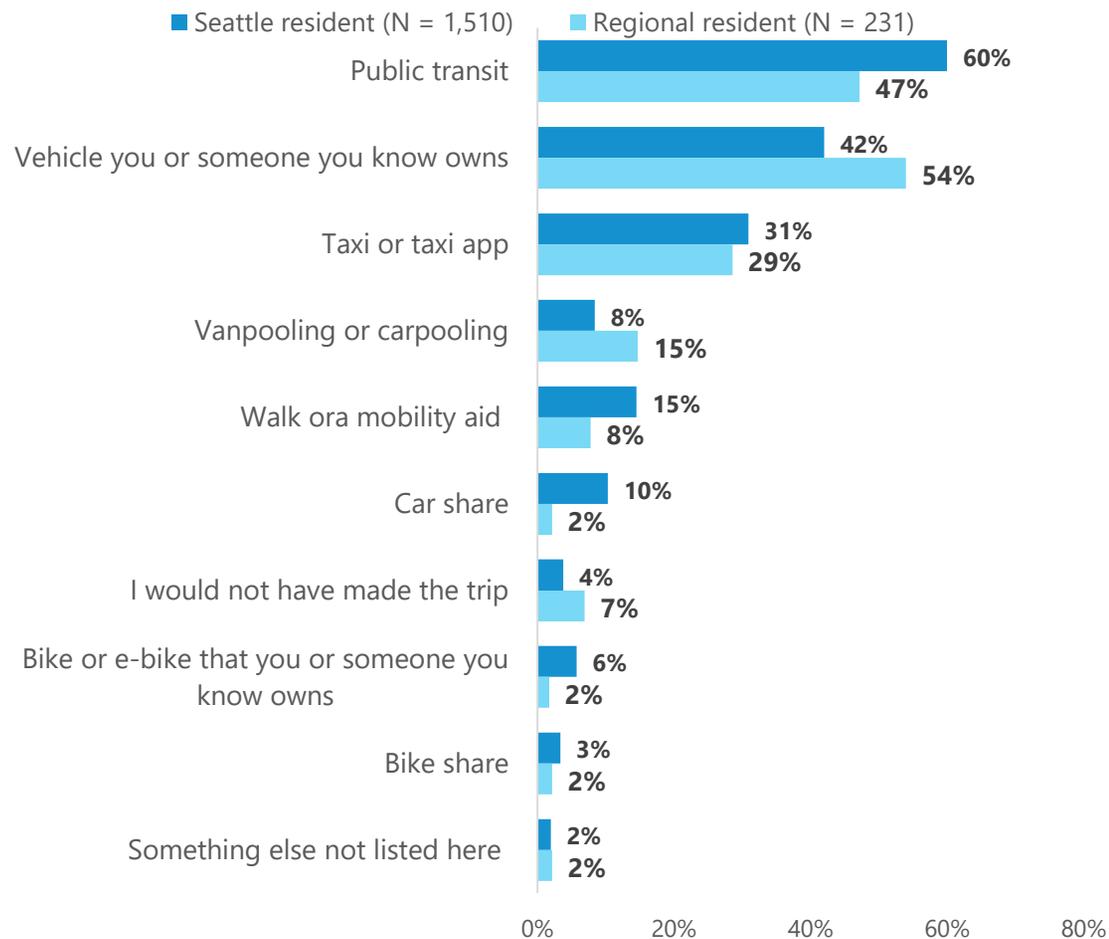
# Public transit is a strong alternative to new mobility options for most respondents.

- If Seattle or Region residents could not use ride hail for their last trip, they would have opted for one of the following (in order of priority):
  - Public transit
  - Personal vehicle
  - Taxi or taxi app
- Almost all of them would have found some way to make the trip. However, a few (4% Seattle residents, 7% of Region residents) would not have made the trip at all.

See page 48 for statistically significant relationships.

## If you couldn't use ride hail for your last trip, which options would you use instead? Please select all that apply.

Base: Seattle or Region resident ride hail users who were randomly assigned this question.



Note: 4 tourists responded. They selected: bike share, taxi or taxi app, bike, car share, public transit, vanpool or carpool, walk or a mobility aid.

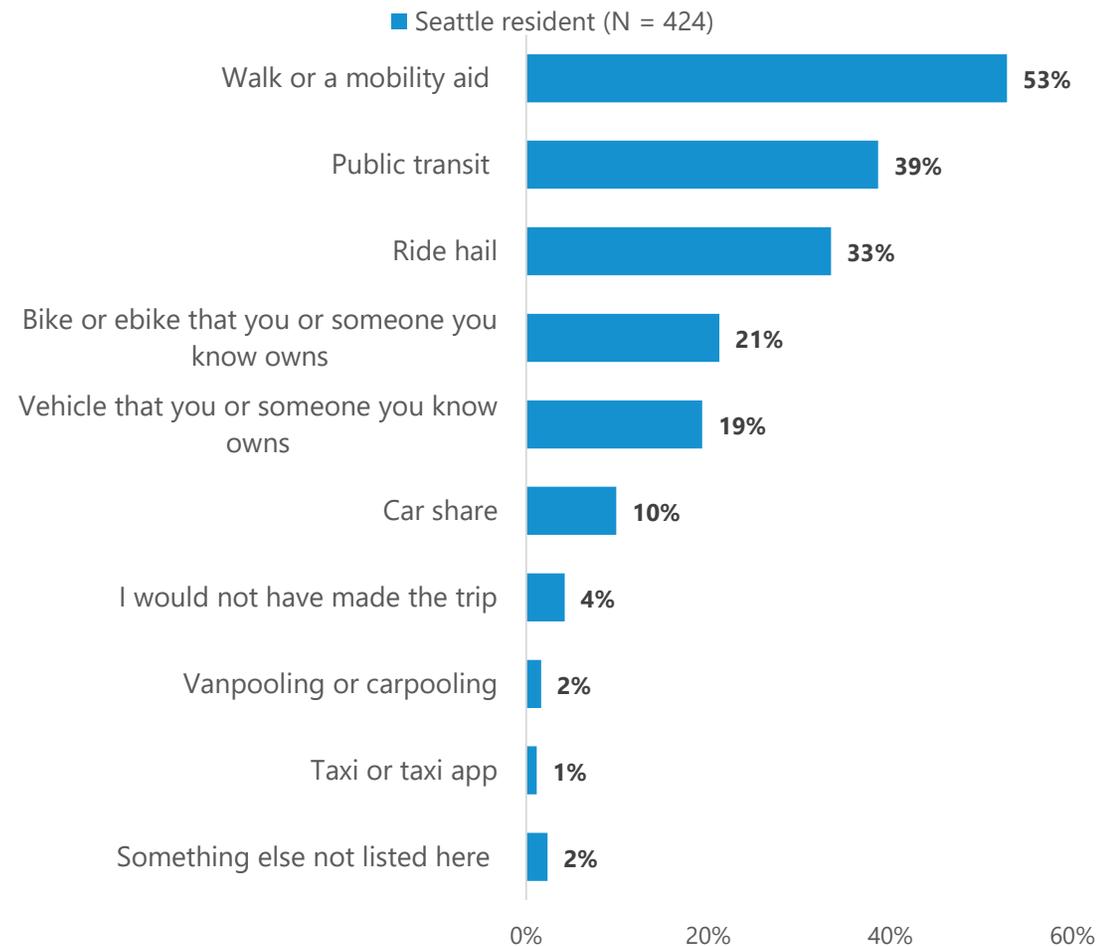
# Walking is a strong alternative to bike share for most respondents.

- If Seattle or Region residents could not use bike share for their last trip, they would have opted for one of the following (in order of priority):
  - Walk or mobility aid
  - Public transit
  - Ride hail
- Almost all of them would have found some way to make the trip. However, 4% of Seattle residents would not have made the trip at all.

See page 48 for statistically significant relationships.

## If you couldn't use bike share for your last trip, which options would you use instead? Please select all that apply.

Base: Seattle resident bike share users who were randomly assigned this question.



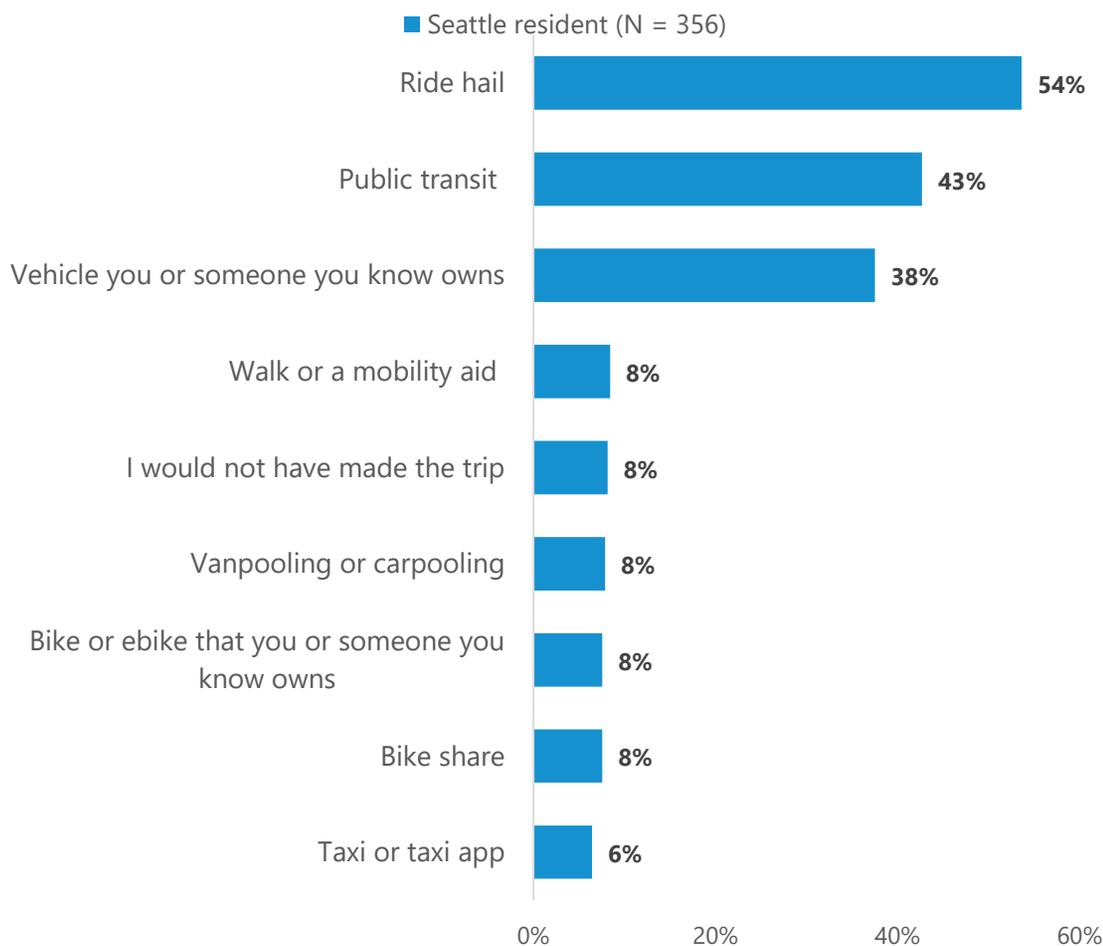
## Ride hail and public transit are strong alternatives to car share for most respondents.

- If Seattle or Region residents could not use car share for their last trip, they would have opted for one of the following (in order of priority):
  - Ride hail
  - Public transit
  - Vehicle you or someone you know owns
- Almost all of them would have found some way to make the trip. However, a few (8% Seattle residents) would not have made the trip at all.

See page 48 for statistically significant relationships.

### If you couldn't use car share for your last trip, which options would you use instead? Please select all that apply.

Base: Seattle residents car share users who were randomly assigned this question.

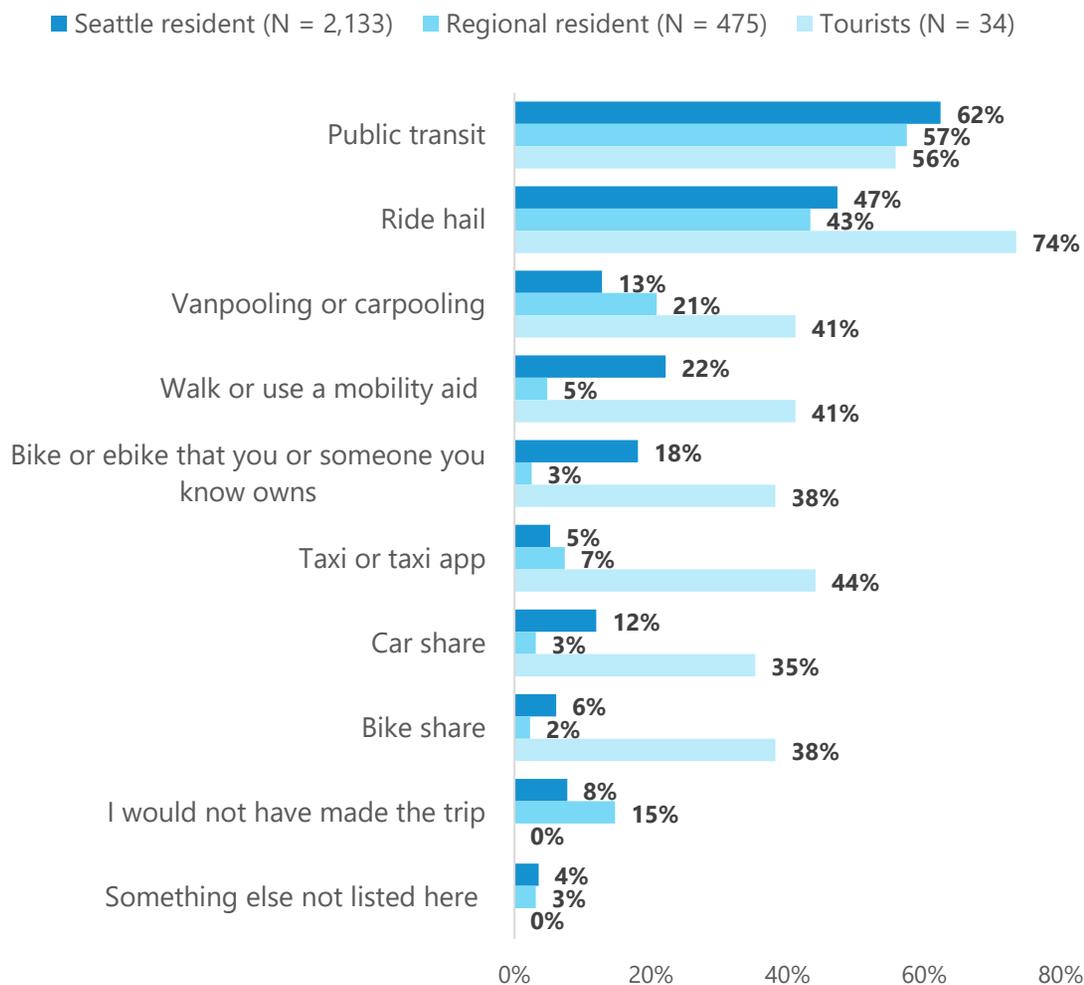


## After public transportation, new mobility options and walking were the most common alternatives to driving alone.

- If Seattle or Region residents could not drive alone for their last trip, they would have opted for one of the following (in order of priority):
  - Public transit
  - Ride hail
  - Vanpool, carpool
- Almost all of them would have found some way to make the trip. However, a few (8% Seattle residents, 15% of Region residents) would not have made the trip at all.

### If you couldn't drive alone for your last trip, which options would you use instead? Please select all that apply.

Base: all respondents



# Race, ability, and language are associated with mode substitution choices.



## People of color

*If they could not use **ride hail**, would be more likely to use:*

- Bike share
- Car share
- Personal vehicle
- Walk or use a mobility aid
- Vanpool, carpool
- Taxi or taxi app
- Used something else
- Not have made trip

*If they could not use **car share**, would be more likely to use:*

- Walk or use a mobility aid
- Public transit
- Not have made the trip



## Non-English Speakers

*If they could not use **ride hail**, would be more likely to use:*

- Bike share
- Car share
- Bike or use an e-bike
- Public transit
- Vanpool, carpool
- Walk or use a mobility aid
- Vehicle they or someone they know owns
- Taxi or taxi app
- Not have made the trip

*If they could not use **bike share**, would be more likely to use:*

- Walk or use a mobility aid

*If they could not use **car share**, would be more likely to use:*

- Bike share



## People with disabilities

*If they could not use **ride hail**, would be more likely to use:*

- Car share
- Vanpool, carpool
- Taxi or taxi app
- Vehicle they or someone they know owns
- Used something else

*If they could not use **bike share**, would be more likely to use:*

- Vanpool, carpool
- Vehicle they or someone they know owns

*If they could not use **car share**, would be more likely to use:*

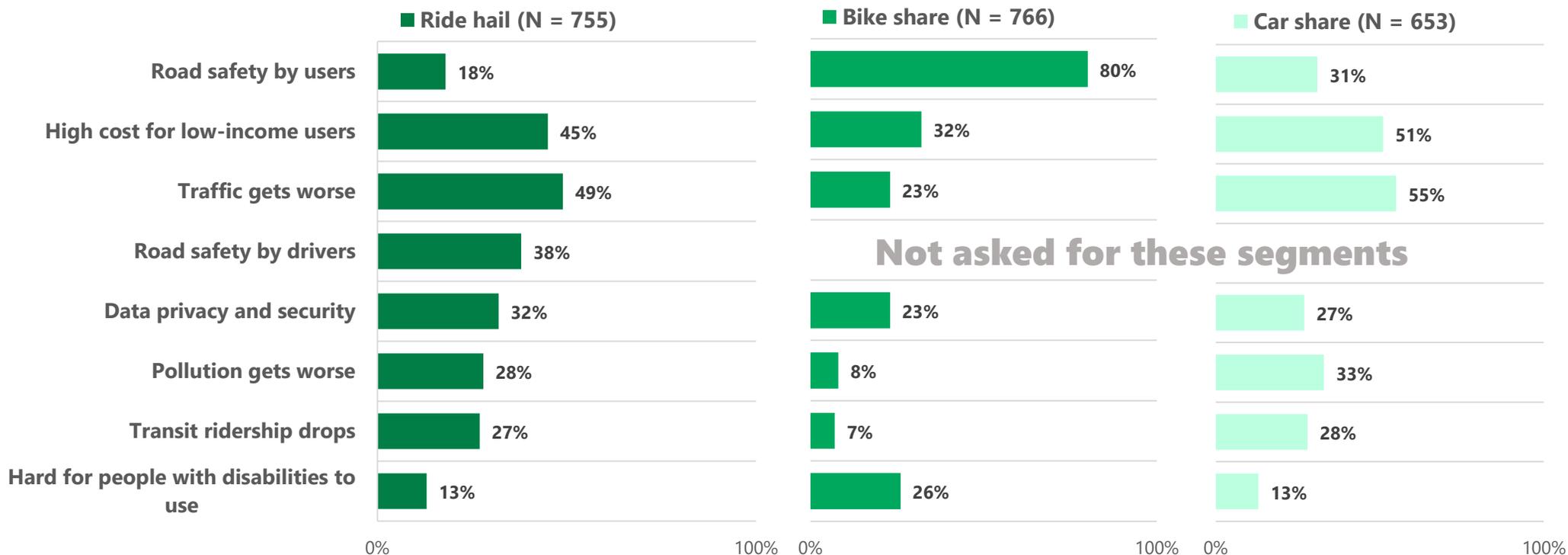
- Taxi or taxi app
- Walk or use a mobility aid
- Public transit
- Vehicle they or someone they know owns

# Seattle residents most wanted to change the following for new mobility options: road safety by users, cost to low-income users, and traffic impacts.

- Seattle residents (new mobility users and non-users) had similar priorities for ways to change new mobility options. Road safety by users, cost for low-income users, and traffic were top priorities.
- Top of mind for Seattle Residents, by mode:
  - Ride hail and car share: high cost for low-income users, traffic gets worse
  - Bike share: Road safety by users

## Which of the following are the most important to change for this new mobility option?

Base: Seattle residents (users and non-users) randomly assigned to a mode group.  
 (Options are listed in descending order of averaged frequency of all new mobility services).



Note: "Road safety by **drivers**" refers to road safety by ride hail drivers. "Road safety by **users**" refers to new mobility users (ride hail passengers, people operating bike or car share vehicles).

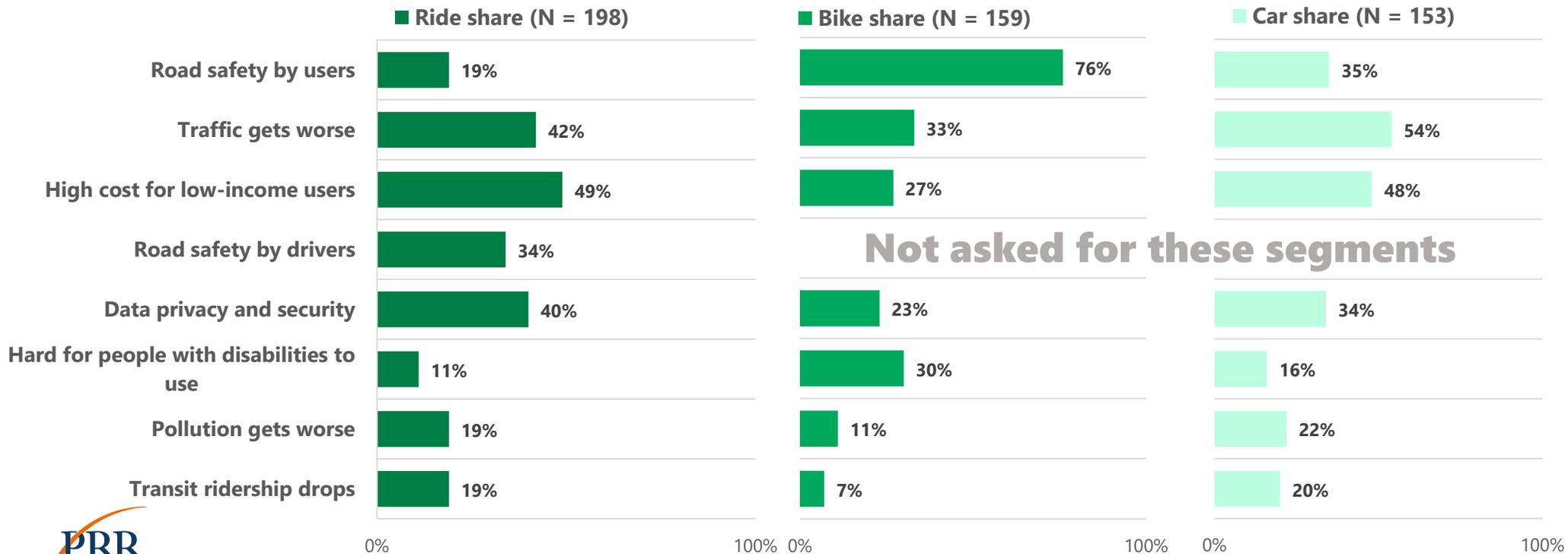
# Region residents most wanted to change the following for new mobility options: road safety by users, traffic impacts and cost to low-income users.

- Region residents (new mobility users and non-users) had similar priorities for ways to change new mobility options. Road safety by users, traffic, and cost to low-income users.
- Top of mind for Region Residents, by mode:
  - Ride hail:** high cost for low-income users, traffic gets worse, data privacy and security
  - Bike share:** Road safety by users
  - Car share:** high cost for low-income users, traffic gets worse

Note: "Road safety by drivers" refers to road safety by ride hail drivers. "Road safety by users" refers to new mobility users (ride hail passengers, people operating bike or car share vehicles).

## Which of the following are the most important to change for this new mobility option? Please choose up to three (3) items.

Base: Region residents (users and non-users) randomly assigned to a mode group.  
 (Options are listed in descending order of averaged frequency of all new mobility services).



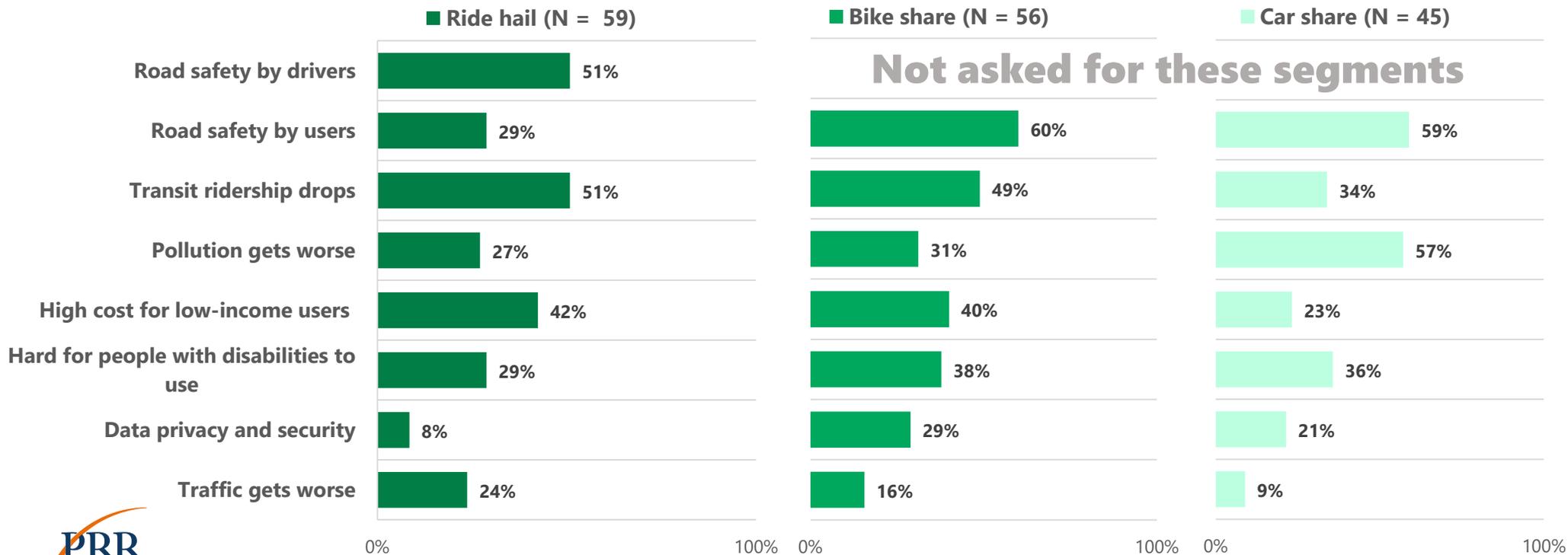
# Tourists most wanted to change the traffic impacts of new mobility options. cost to low-income users, and road safety by drivers.

- Tourists (new mobility users and non-users) had similar priorities for ways to change new mobility options. Road safety by both drivers and users as well as transit ridership drops.
- Top of mind for Tourists, by mode:
  - **Ride hail:** road safety by drivers, transit ridership drops
  - **Bike share:** road safety by drivers, transit ridership drops
  - **Car share:** road safety by drivers, pollution gets worse

Note: "Road safety by **drivers**" refers to road safety by ride hail drivers. "Road safety by **users**" refers to new mobility users (ride hail passengers, people operating bike or car share vehicles).

## Which of the following are the most important to change for this new mobility option? Please choose up to three (3) items.

Base: Tourists randomly assigned to a mode group.  
(Options are listed in descending order of averaged frequency of the all mobility services).



# Race and ability are correlated with respondents' priorities for changes to new mobility.



## People of color

*More likely to say the most important thing for **ride hail** to change*

- Data privacy and security
- Traffic gets worse
- Transit ridership drops
- Hard for people with disabilities to use

*More likely to say the most important thing for **bike share** to change*

- Traffic gets worse
- Pollution gets worse
- High cost for low-income users
- Hard for people with disabilities to use



## People with disabilities

*More likely to say the most important thing for **ride hail** to change*

- High cost for low-income users
- Hard for people with disabilities to use

*More likely to say the most important thing for **bike share** to change*

- Pollution gets worse
- High cost for low-income users
- Hard for people with disabilities to use

## When asked what ride hail policies SDOT should focus on, respondents prioritized availability throughout the city, safety, and pricing.

- When asked what was most important to change about **ride hail** services, respondents prioritized geographic proximity, safety, and pricing. These responses align with views towards bike and car share services.
- They ranked other forms of access lower, including payment methods, translation, shared trips, and availability to people without smartphones.
- There is more support for encourage ride hail companies to use electric vehicles than car share companies.

### Top 5 **MOST** important things to change for ride hail:

- Each part of town has this new mobility option
- More driver background checks
- Make prices clear and consistent (Ex. When you're charged tolls, surge or peak-pricing)
- Encourage companies to use electric vehicles
- Offer programs to lower costs for low-income households

### Top 5 **LEAST** important things to change for ride hail:

- Add more ways for people to pay (Ex. With cash)
- Make companies translate apps into more languages
- Encourage companies to offer more shared trips
- Make it easier for people without smartphones
- Companies offer better customer service, technical support, or training

*Note: We did not segment this analysis by residence.*

## When asked what bike share policies SDOT should focus on, respondents prioritized availability, safety, and pricing. Protected bike lanes and dedicated spots to lock bikes were more controversial.

- When asked what was most important to change about **bike share** services, respondents had different priorities. Geographic proximity, safety, and pricing were top-rated features, similar to other new mobility modes. However, protected bike lanes and spots where users are required to lock bikes was polarizing. Some people thought these two things were very important, others did not.
- They ranked various forms of access lower, including payment methods, translation, shared trips, and availability to people without smartphones.

### Top 5 **MOST** important things to change for bike share:

- Each part of town has this new mobility option
- Add more protected bike lanes
- Require companies and users to lock their bikes at dedicated spots
- Safety features of ride (Ex: helmets, lighting, etc.)
- Make prices clear and consistent (Ex. When you're charged tolls, zone-based pricing)

### Top 5 **LEAST** important things to change for bike share:

- Make companies translate apps into more languages
- Require companies and users to lock their bikes at dedicated spots
- Add more protected bike lanes
- Add more ways for people to pay (Ex. With cash)
- Make it easier for people without smartphones

*Note: We did not segment this analysis by residence.*

## When asked what car share policies SDOT should focus on, respondents prioritized availability, pricing, and costs for low-income households. Electric vehicles and required parking spots were more controversial.

- When asked what was most important to change about **car share** services, respondents had different priorities. Geographic proximity, pricing, and costs for low-income households were top-rated features, similar to other new mobility modes. However, electric vehicles and required parking spots were polarizing. Some people thought these two things were very important, others did not.
- Respondents ranked various forms of access lower, including payment methods, translation, and availability to people without smartphones.

### Top 5 **MOST** important things to change for car share:

- Each part of town has this new mobility option
- Make prices clear and consistent (Ex. When you're charged tolls, surge or peak-pricing)
- Offer programs to encourage companies to use electric vehicles
- Offer programs to lower costs for low-income households
- Require companies park only in their reserved parking spots

### Top 5 **LEAST** important things to change for car share:

- Require companies park only in their reserved parking spots
- Make companies translate apps into more languages
- Add more ways for people to pay (Ex. With cash)
- Make it easier for people without smartphones
- Offer programs to encourage companies to use electric vehicles

*Note: We did not segment this analysis by residence.*

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# Appendix

# Appendix A: Methods to Improve Survey Accessibility

## Background

- The primary goal of SDOT's New Mobility Survey was to better understand who uses new mobility services and when, where, and why they use these modes to get around Seattle. An important goal of this research was to reach populations that are underrepresented in data collection efforts, including people of color, people with disabilities, people who have low household incomes, or youth (13-17 years old).
- Survey mode (i.e. paper, online, phone) affects accessibility. For example, online survey accessibility depends on hardware and software, including which browser, operating system, and device people use to access the survey. To ensure the survey was accessible to populations with varying levels of resources and technology access, PRR administered a multi-mode survey that consisted of a standard online survey, a screen-reader optimized online survey, and a call-in by phone option. This memo focuses on the methods for the latter two options. The standard online survey methods are described in full in the accompanying report.
- 385 people took the accessible version of the survey: 340 online survey and 45 by phone.

# Appendix A: Methods to Improve Survey Accessibility Approach

PRR implemented the following best practices when designing our survey options.

## 1. Before launching the survey, we:

- Used people-first language in all recruitment and survey materials.
- Labelled “Next” and “Back” so screen readers could read navigation buttons aloud in the screen-reader optimized survey.
- Pre-tested the screen-reader survey with screen reading software (JAWS).
- Used the Qualtrics Survey Accessibility Tool to review the instrument and check for WCAG 2.0 AA (and Section 508) compliance.
- Double-checked the contrast, color schemes, and font size would be accessible for people.

## 2. In the survey introduction, we:

- Included descriptions about SDOT’s commitment to an accessible experience.
- Invited respondents to learn more about the survey modes available for users seeking additional accessible versions of the survey.
  - Offered people multiple ways to participate in the survey, including a version of the online survey that was optimized for screen reader technology and a call-in phone option.

To ensure our surveys are accessible, we design survey instruments, the options for responding, and our recruitment with people of varying sight, hearing, mobility, and cognitive abilities in mind.

# Appendix A: Methods to Improve Survey Accessibility

## Approach

### 3. Throughout the survey, we minimized the use of:

- Question types that are incompatible with screen readers or difficult to use for call-in options:
  - Matrix/Grid
  - Drag & Drop ranking (did not appear in standard online survey)
  - Max Diff
- Questions that rely on memorizing information or comparing long lists of priorities.
- Audio and video in questions.

### 4. Throughout the survey, we included additional supports:

- Used an accessible formatting theme (color contrast is important for visually impaired users).
- When a map appeared, we included detailed descriptions of the map boundaries, as well as alternative text for screen.
- When a map appeared, we linked directly to a Google map to allow respondents the ability to zoom dynamically or use additional assistive technology.
- Stated the number of required responses for any required questions (ex: "choose your top 3 options").
- Set the survey to pick up where respondents left off, to allow survey takers as much time as they needed to complete the survey.

## Appendix A: Methods to Improve Survey Accessibility

### Limitations

In order to meet specific needs for this survey, PRR's approach had certain limitations that reduced accessibility.

#### Survey logic:

- The survey required logic in order to show respondents questions relevant to them and segment them for analysis. For example, the survey asked follow-up questions about new mobility modes based on options people told us they used. This also caused the following:
  - Survey logic sometimes prevented survey respondents from using the "Back" button for some parts of the survey.
  - Respondents who made a mistake earlier in the survey (e.g., said they use bike share but then later reported they did not use bike share) were not able to go back and change their earlier answer. PRR included answer choices and then cleaned the survey data, which allowed the us to make these changes on the respondents' behalf in the data cleaning phase.

# Appendix A: Methods to Improve Survey Accessibility

## Lessons Learned

### Recruitment

- Developing and administering an accessible survey takes significant time and care. People who participate this way find the experience very positive. They were deeply appreciative that SDOT made the survey available to them and felt like their voices were heard.
- The call-in phone option reached people we would not have heard from otherwise. They would not have been able to take an online survey and may not have participated by mail.

### Fielding

- Inviting respondents to take the survey by phone in the invitation mailing (rather than only offering the option in the online survey introduction) significantly increases the response rate to the call-in phone option. Surveys intended to be widely accessible should include a phone number in the recruitment materials.
- It can take multiple tries to connect with respondents who request to take the survey by phone, which delays the fielding period and frustrates some respondents.

### Survey design

- Simplify the design to minimize branching, segmentation, complex question types, and overall length.
- Surveys by phone typically take respondents 2-3 times as long to complete as the standard online survey (10 minutes in the standard online survey = 30 minutes by phone).
- Lists more than 5 items long are hard for people to manage in a phone survey.
- Trade-off questions (Max Diff) are hard for people to manage in a phone survey.

# Appendix A: Methods to Improve Survey Accessibility

## Recommendations

Many of the following recommendations will improve the user experience for respondents taking the standard or accessible-version surveys.

- Surveys intended to be widely accessible should be multi-mode: mail-in paper option, call-in phone option, accessible-format online survey, and standard online survey.
- Work with a survey call center vendor to administer phone surveys so that staff is available to administer the survey as soon as people call in (rather than needing to leave a voicemail).
- Ensure the standard online survey takes less than 10 minutes to complete
  - Include fewer questions
  - Limit complex question (Max Diff, Matrix/Grid)
  - Keep lists under 8 items
- Consider replacing complex question types with open-end responses for the accessible versions of the survey, and consider offering all respondents the option to complete Max Diff questions as an open-ended response.
- If you keep Max Diff questions, provide an open-ended response alternative that will work for screen readers and phone survey administration. However, the open-ends and Max Diff responses will not be directly comparable and it will take more time to clean and analyze the data.
- At the end of the survey, ask respondents how accessible the survey was for them and if they have any additional feedback on survey accessibility.

# Appendix B: Census Comparison, Part 1

	Seattle			Region		
	Survey	Census (ACS 2018)	Difference	Survey	Census (ACS 2018)	Difference
<b>Age</b>						
18 to 24 years	5%	13%	-8%	3%	11%	-8%
25 to 44 years	45%	46%	-1%	31%	39%	-8%
45 to 54 years	15%	15%	0%	18%	18%	0%
55 to 64 years	15%	13%	2%	20%	16%	4%
65 to 74 years	14%	9%	5%	20%	10%	10%
75 years and over	5%	6%	-1%	7%	7%	0%
<b>Income</b>						
Less than \$10,000	2%	6%	-4%	3%	4%	-2%
\$10,000 to \$14,999	1%	3%	-2%	1%	3%	-1%
\$15,000 to \$24,999	3%	6%	-2%	2%	6%	-4%
\$25,000 to \$34,999	5%	6%	-1%	6%	7%	-1%
\$35,000 to \$49,999	9%	9%	0%	9%	11%	-2%
\$50,000 to \$74,999	15%	14%	1%	18%	17%	1%
\$75,000 to \$99,999	13%	12%	1%	16%	14%	2%
\$100,000 to \$149,999	22%	18%	4%	24%	19%	5%
\$150,000 to \$199,999	11%	10%	1%	10%	9%	1%
\$200,000 or more	20%	16%	4%	12%	11%	1%

## Appendix B: Census Comparison, Part 2

	Seattle			Region		
	Survey	Census (ACS 2018)	Difference	Survey	Census (ACS 2018)	Difference
<b>Hispanic or Latino origin</b>						
Yes	6%	7%	-0.4%	6%	11%	-6%
<b>Race</b>						
American Indian and Alaska Native	0.31%	0.58%	0%	1%	1%	0%
Asian	11%	15%	-4%	14%	15%	-1%
Black or African American	3%	7%	-4%	3%	6%	-4%
Native Hawaiian and Other Pacific Islander	0.18%	0.29%	0%	0%	1%	-1%
White	80%	68%	12%	78%	66%	12%
Some other race	1%	2%	-1%	1%	4%	-3%
Two or more races	5%	7%	-2%	3%	7%	-4%
<b>Gender</b>						
Male	47%	50%	-3%	48%	50%	-2%
Female	53%	50%	3%	52%	50%	2%

## Appendix C: Demographic Profile by User

	Ride hail (N = 2,121)	Bike share (N = 682)	Car share (N = 523)
<b>Gender</b>			
Male	46%	52%	53%
Female	52%	47%	46%
Gender(s) not	1%	1%	1%
None of these	1%	0%	1%
<b>Household Income</b>			
Less than \$10,000	2%	1%	2%
\$10,000 to \$14,999	1%	1%	1%
\$15,000 to \$24,999	2%	2%	3%
\$25,000 to \$34,999	4%	4%	2%
\$35,000 to \$49,999	7%	7%	8%
\$50,000 to \$74,999	13%	13%	12%
\$75,000 to \$99,999	13%	13%	12%
\$100,000 to \$149,999	21%	22%	21%
\$150,000 to \$199,999	11%	10%	16%
\$200,000 to \$250,000	8%	8%	10%
More than \$250,000	13%	13%	12%
Don't know	6%	5%	3%
<b>Ethnicity</b>			
Hispanic or Latino	7%	8%	8%

# Appendix C: Demographic Profile by User

	Ride hail (N = 2,121)	Bike share (N = 682)	Car share (N = 523)
<b>Race</b>			
American Indian or Alaska Native	2%	2%	1%
Asian or Asian American	14%	13%	12%
Black or African American	3%	3%	4%
Native Hawaiian or Pacific Islander	1%	1%	1%
White	84%	88%	85%
Race(s) not listed	1%	1%	1%
<b>Age</b>			
13-15	0.4%	1%	0%
16-17	1%	1%	1%
18-24	6%	9%	6%
25-34	28%	36%	34%
35-44	24%	30%	28%
45-54	16%	14%	16%
55-64	13%	7%	11%
65-74	10%	2%	4%
75+	4%	1%	1%
<b>Ability</b>			
A condition that substantially limits physical activities such as walking, climbing stairs, reaching, lifting, or carrying	6%	3%	4%
Blindness or have serious difficulty seeing when wearing glasses	1%	0%	1%
Deafness or have serious difficulty hearing	1%	0%	1%
Limited ability to care for yourself	1%	1%	2%
Physical, mental, or emotional condition that limits learning, remembering, or concentrating	2%	8%	2%
Disability or disabilities not listed	2%	2%	3%
I do not have any of the conditions above	91%	94%	92%

## Appendix C: Demographic Profile by User

	Ride hail (N = 2,121)	Bike share (N = 682)	Car share (N = 523)
<b>Reliable Access for New Mobility</b>			
Computer or tablet with Internet access	95%	98%	95%
Cell phone with Internet access	98%	100%	99%
Working scooter or e-scooter	24%	34%	31%
Working bike or e-bike	62%	82%	75%
Working skateboard, hoverboard, or other similar device	8%	16%	12%
Working car or motor vehicle that you or someone you know owns	89%	89%	84%
<b>Home Language(s)</b>			
Cantonese	1%	1%	1%
English	99%	99%	98%
Korean	1%	1%	1%
Mandarin	2%	2%	2%
Somali	0.3%	0%	0.4%
Spanish	5%	6%	6%
Tagalog	1%	1%	1%
Vietnamese	0.4%	1%	0%
Other	7%	6%	6%

## Appendix C: Tables for Low Response Data, Part 1

### Top Trip Purposes

Bike share	Car share	
Recent Tourists (N = 12)	Region Residents (N = 11)	Recent Tourists (N = 14)
1. Go home	1. Errands or medical visits	1. Errands or medical visits
2. Errands or medical visits	2. Get to public transit	2. Exercise or recreation
3. Exercise or recreation	3. Other	3. Get to public transit
4. Work or school related	4. Exercise or recreation	4. Other
5. Get to public transit		5. Go home

## Appendix C: Tables for Low Response Data, Part 2

### Top Reasons Recent Tourists Didn't Use New Mobility in Seattle

Ride hail (N = 19)	Bike share (N = 25)	Car share (N = 27)
1. I wouldn't feel safe using it	1. I prefer to drive	1. I want a more flexible option
2. Arrival times are unreliable	2. I don't want to ride in bad weather	2. I do not want to get a membership
3. I prefer to drive	3. I wouldn't feel safe using it	3. Trips take too long
4. It's too expensive	4. I feel unsafe going up or down hills	4. I don't know how to use it
5. Something else	5. I don't have a helmet, and there are no helmets available	5. Arrival times are unreliable

## Appendix C: Tables for Low Response Data, Part 3

### Using New Mobility to Access Transit

	Seattle Resident (N = 37)	Region Resident (N = 8)	Tourist (N = 11)
<b>Ride hail</b>			
Never	18	2	0
Occasionally	16	6	8
Often	3		3
<b>Bike share</b>			
Never	2	1	
Occasionally	7		5
Often			3
<b>Car share</b>			
Never	5	1	
Occasionally	3		4
Often	1		4

## Appendix C: Tables for Low Response Data, Part 4 Top Alternatives to New Mobility

### If not ride hail...

Tourist (N = 4)
1. Bike share
1. Taxi or taxi app
2. Bike or e-bike
2. Car share
2. Public transit
2. Vanpool or carpool

### If not bike share...

Region (N = 22)	Tourist (N = 2)	Region (N = 12)
1. Public transit	1. Bike or e-bike	1. Vehicle you or someone you know owns
2. Ride hail	2. Public transit	2. Ride hail
2. Walk or mobility aid	2. Ride hail	3. Public Transit
3. Bike or e-bike	2. Walk or mobility aid	4. Vanpooling or carpooling

## Appendix D: Summary of responses from accessible version Time of day that respondents use each new mobility option

### Ride hail...

Seattle (N = 40)	Region (N = 8)	Tourist (N = 11)
1. Late afternoon	1. Late afternoon	1. Early morning
2. Night	2. Early morning	2. Late morning
2. Early morning		

### Bike share...

Seattle (N = 10)	Tourist (N = 8)
1. Late afternoon	1. Afternoon
2. Morning	2. Late morning

### Car share...

Seattle (N = 12)	Tourist (N = 8)
1. Late afternoon	1. Late afternoon
2. Night	2. Night

## Appendix D: Summary of responses from accessible version Trip purpose for each new mobility option

### Ride hail...

Seattle (N = 10)	Region (N = 8)	Seattle (N = 10)
1. Work	1. Errand	1. Site seeing
2. Errands	2. Fun or recreational	2. Errands
2. Special event		

### Bike share...

Seattle (N = 10)	Tourist (N = 8)
1. Work/school	1. Site seeing
2. Errands	

### Car share...

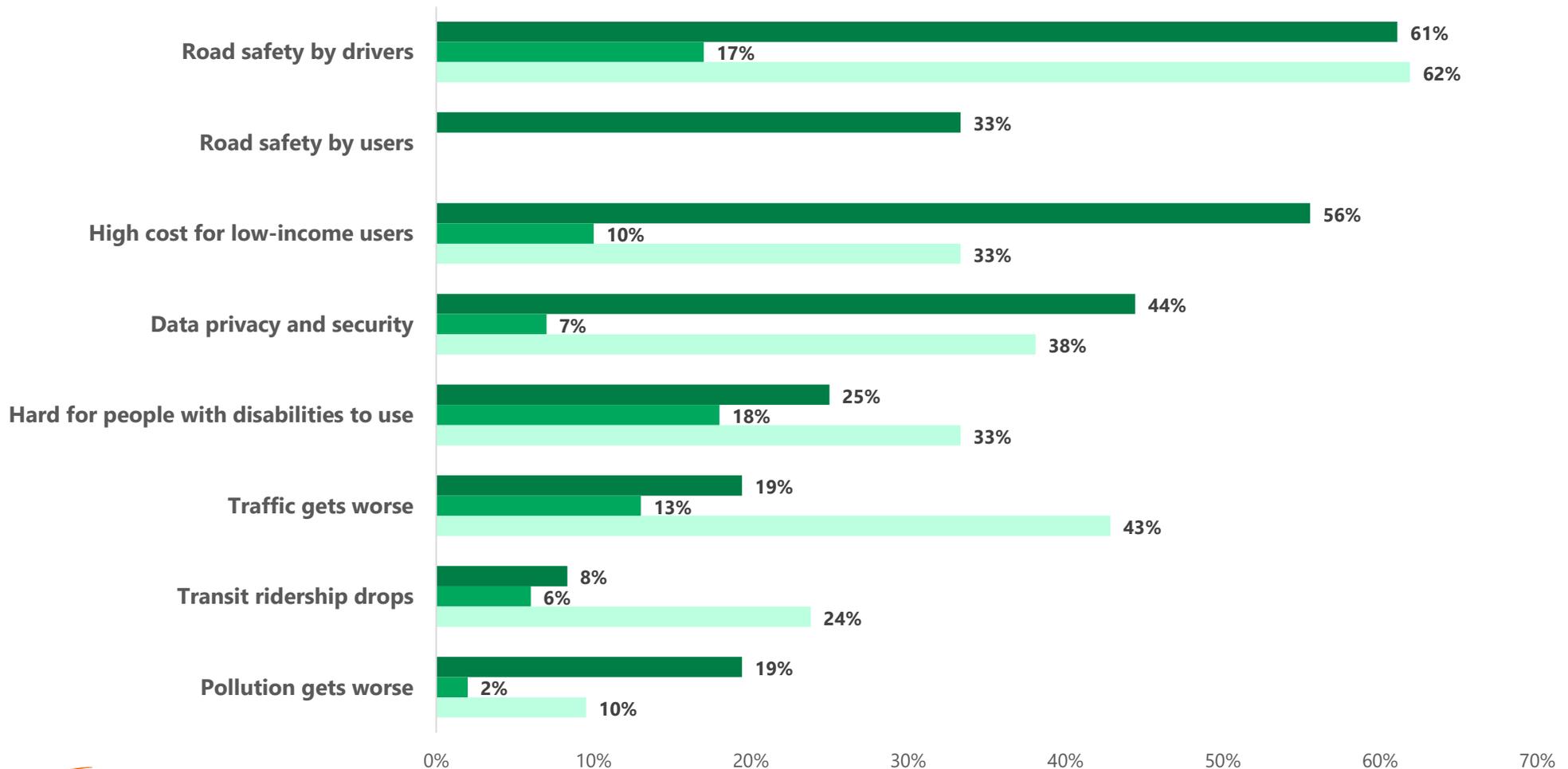
Seattle (N = 10)	Tourist (N = 8)
1. Special/long trips	1. Site seeing
2. Multi-destination trips	

# Appendix E: Charts of potential tourists

**Which of the following are the most important to change for this new mobility option?  
Please choose up to three (3) items.**

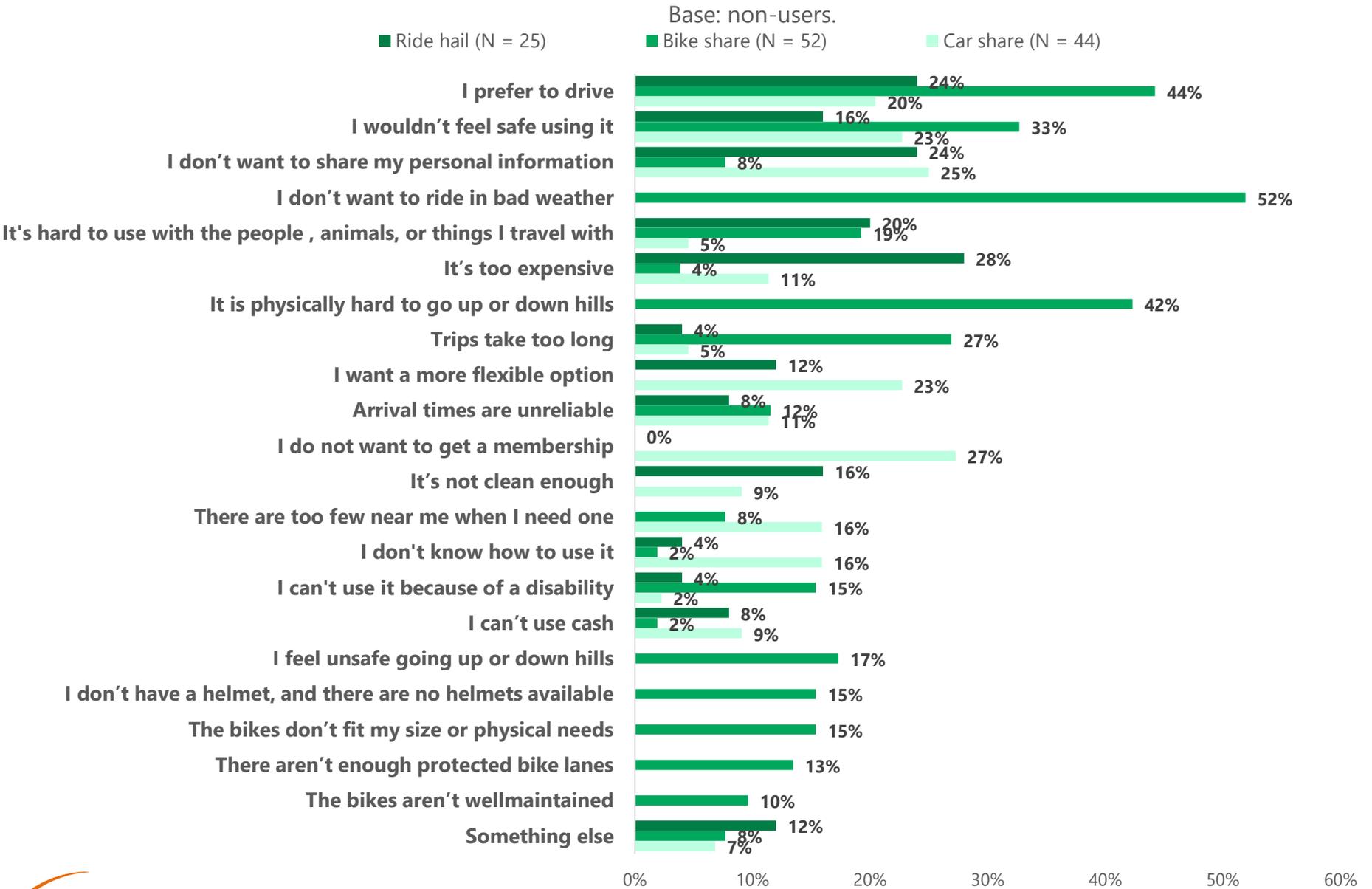
Base: Potential tourists (users and non-users) randomly assigned to a mode group.

■ Ride hail (N = 36)   ■ Bike share (N = 31)   ■ Carshare (N = 21)



# Appendix E: Charts of potential tourists

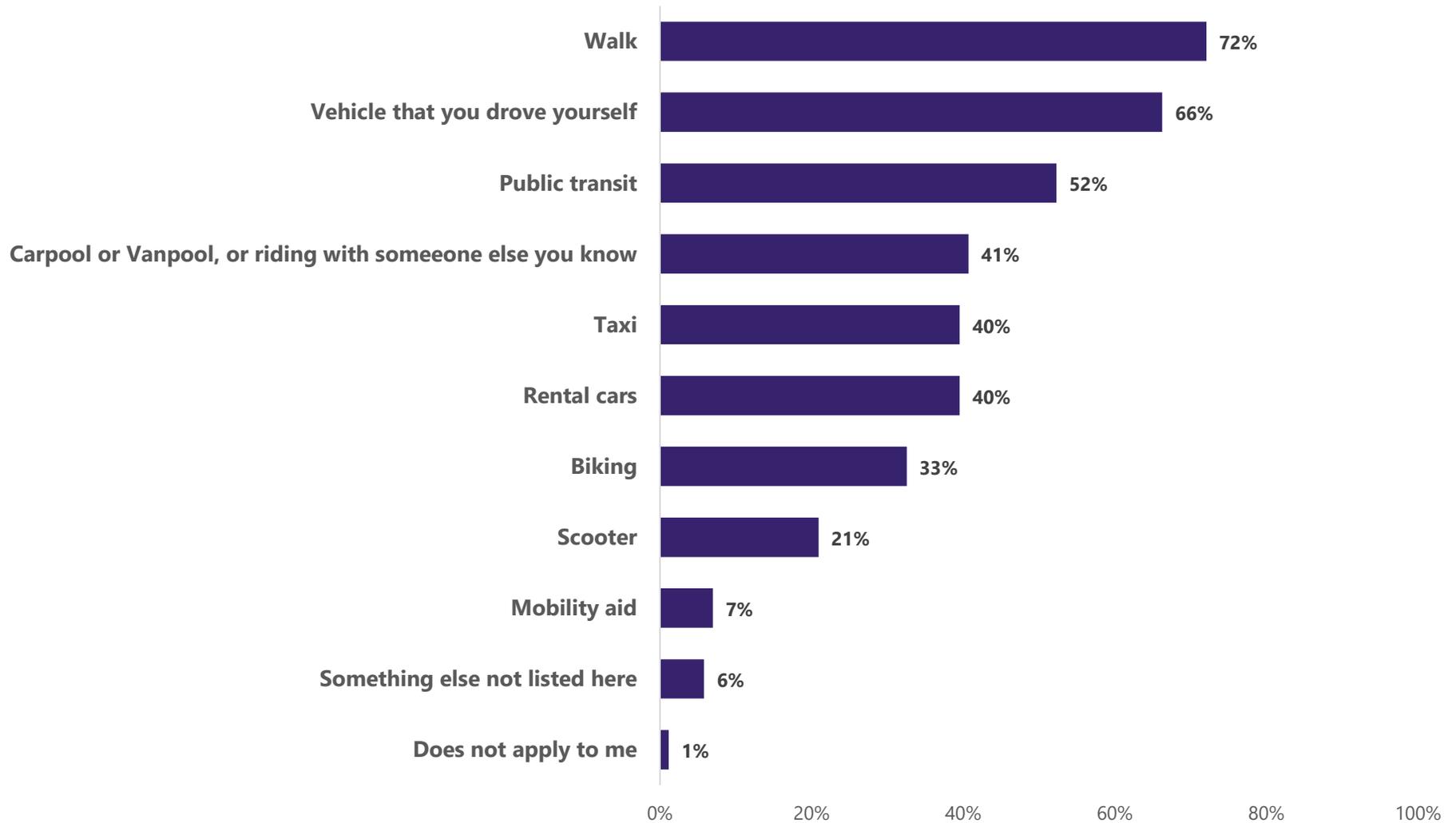
## Which of the following describes why you don't use new mobility services?



# Appendix E: Charts of potential tourists

**Which of the following would you like to use to get around Seattle? Please select all that apply.**

Base: potential tourists (N = 88).



## Appendix E: Charts of potential tourists

**Which new mobility options have you used somewhere outside of Seattle (beyond the city limits) in the last 12 months? Please select all that apply.**

Base: potential tourists (N = 87).

